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ABSTRACT

Twenty papers presented at the Oregon state conference on "Inservice Physical Education and Public Law 94-142" are included in the volume. The first section focuses on the inservice challenge and includes papers on subjects such as the accountability of inservice training for implementation of Public Law 94-142, the practical implications of research in physical education, and needs assessment methodologies for inservice. The second section presents inservice models such as a field based model of physical education for the handicapped, a model staff development program for physical educators, a field delivery system for inservice in a rural area, and a motor development inservice training project. The final section considers inservice for special groups. Among topics covered are a psychosocial approach to inservice physical education, administrative inservice considerations, and an inservice model for university facilities. (PHR)

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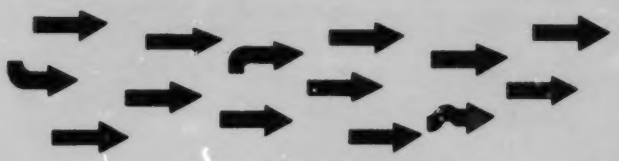

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FOREWORD

On June 15 and 16, 1978, the Department of Physical Education at Oregon State University, through funds provided in part by the Bureau of Education for the Handicapped, served as the host for a conference titled "Inservice Physical Education and Public Law 94-142." The conference was designed to provide an opportunity for experts in the field of special physical education to share their observations about successful inservice procedures for assisting teachers to serve the physical education needs of handicapped children. Over seventy individuals from twenty-two states participated in the two-day meeting.

The conference was the outgrowth of several conversations between the editors and other colleagues across the United States. During these discussions it became apparent that information was needed about what others were doing to assist practicing teachers of physical education meet the mandate of the Education for All Handicapped Children Act of 1975. The Oregon State Conference was designed, therefore, to permit this exchange of ideas. Twenty of the papers presented at the conference are included within this volume. Several outstanding experts in the field of special physical education share their thoughts and ideas in the following pages.

The papers are divided into three sections: Part I focuses on the Inservice Challenge, Part II looks at the Inservice Models, Rural to Metropolitan, and Part III reviews Inservice Considerations for Special Populations.

The editors welcome comments on the papers provided within this volume. We believe that the information contained in the following pages will be useful for others who design and implement inservice experiences for teachers of physical education. Personnel within universities might find this collection of papers particularly valuable as a source to use in graduate seminars designed to prepare resource consultants in adapted/special physical education. Finally, we believe that this volume is only a beginning and future conferences must be held to assist professionals design quality inservice programs for physical education personnel. The physical education needs of handicapped children are dependent upon teachers who have received appropriate inservice instruction.

J.M.D.
J.L.H.

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Part I Inservice Challenge

This section focuses on several of the issues which confront personnel who design programs to assist teachers of physical education comply with PL 94-142. Diversity of opinion is evident throughout the section. Papers are presented which speak to the necessity of data-based instructional strategies that comply with federal regulations. Other presentations focus on the value of teachers' perceived needs and the importance of responding to trainees' needs. Of great importance, too, is the need to disseminate information which is consistent with that found in current research literature. All of the presentors speak to the need for quality inservice experiences. All agree, too, that the challenge of providing such services is indeed great.

Perspectives on Inservice Education

John M. Dunn

The purpose of this presentation is to focus on three primary tasks. First, is to emphasize the importance of inservice education as it relates to physical education services for handicapped children. Second, to share some recommendations for conducting inservice experiences which have been gleaned from a variety of sources, and thirdly, to propose some questions about the process of inservice delivery which seem worthy of consideration. The intent of my presentation is to help the presentors who follow to focus on some of the issues which must be discussed during the next two days of this conference.

IMPORTANCE OF INSERVICE EDUCATION

The importance of inservice education experiences in the field of special physical education has been highlighted by the passage of Public Law 94-142, the Education for All Handicapped Children Act of 1975. This particular piece of legislation has insured for the first time that all handicapped children will receive a free, appropriate public education, including instruction in physical education. Other significant features of PL 94-142 include the emphasis on providing education programs in the least restrictive environment and the assurance of appropriate and accountable experiences through development of individualized educational programs. The impact of this legislation has led to an unprecedented need for the retraining of physical education teachers. Skill development is needed to insure that realistic physical education goals and objectives are written and implemented for handicapped children. Information concerning screening procedures, assessment, placement, behavior management and many other topics must be dealt with to assist physical education teachers meet the requirements of PL 94-142. Extensive work must also focus on attitudes, value clarification, and the concept of normalcy to assist teachers overcome any apprehensions which may be evident. Inservice experiences must also be planned for other deliverers of physical education services: elementary educators and special educators. In many states, school personnel with minimal experiences in physical education are instrumental in providing physical education programs at the elementary level.

The need for inservice training has also been supported at the national level by the United States Office of Education, Bureau of Education for the Handicapped. As the agency responsible for monitoring compliance with PL 94-142, The Bureau of Education for the Handicapped has identified, as a priority training need, the inservicing of regular educators. From Fiscal Year 1977 to Fiscal Year 1978, a shift of over two million training dollars from preservice to inservice training was recommended by BEH's Division of Personnel Preparation (DPP). Figure One presents BEH/DPP's priority training categories, Although the twelve priority areas remain constant for the past two fiscal years, a drop in priority ranking and money allocated is evident for General Special Education. In contrast, both Regular Education and Physical Education

BEH/DPP Training Priorities
FY '77 Compared to FY '78

FY '77			FY '78		
Rank		Amount*	Rank		Amount*
1.	General Special Education	$10,470	1.	Regular Education	$9,920
2.	Regular Education	9,465	2.	Severely Handicapped	9,431
3.	Severely Handicapped	8,075	3.	General Special Education	8,220
4.	Early Childhood	5,655	4.	Early Childhood	6,220
5.	Model Improvement	4,530	5.	Model Improvement	4,487
6.	Volunteer	1,510	6.	Vocational/Career	1,700
7.	Vocational/Career	1,142	7.	Paraproprofessional	1,414
8.	Paraprofessional	1,415	8.	Physical Education	1,028
9.	Physical Education	910	9.	Recreation	918
10.	Recreation	810	10.	Interdisciplinary	772
11.	Interdisciplinary	610	11.	Volunteer	665
12.	Development Assistance	500	12.	Developmental Assistance	600

*Amounts are expressed in hundreds of thousands of dollars.

Figure 1

experienced a rise in ranking and money allocations from Fiscal Year 1977 to Fiscal Year 1978. Shifting of funds from preservice to inservice and from General Special Education personnel development to Physical Education and Regular Education training training is a trend which appears likely to continue.

In September, 1977, the Bureau of Education for the Handicapped invited representatives from physical education and recreation to attend a meeting in Washington, D.C. The select group of ten people was asked to identify training needs as future priorities for funding. The panel of experts' recommendations for physical education are listed below:

1. Inservice training for educational policy makers
2. Inservice training of instructional personnel
3. Inservice training of community management personnel
4. Preparation of physical educators for rural areas
5. Retraining and inservice of trainers of teachers
6. Inservice of paraprofessionals, volunteers, and parents related to physical education
7. Improve dissemination procedures in physical education
8. Special projects to develop evaluation instruments and generate new training models

It is interesting to note that inservice training is highlighted in several of these as a very important personnel preparation need in the field of physical education. During the next two days, several papers will be presented which focus on some of these needs. As will be seen, inservice experiences must be provided for a variety of people, including administrators, higher education personnel, community leaders, and instructional personnel.

RECOMMENDATIONS FOR INSERVICE TRAINING

Awareness of the critical need to plan educational experiences for practicing physical education teachers which will equip them with sufficient skills to teach handicapped children has generated a great deal of discussion about how this goal can best be achieved. The Bureau of Education for the Handicapped, Division of Personnel Preparation, recognizing this need, convened an advisory group of special educators in Washington, D.C. on August 25-26, 1977, to develop a set of recommendations for inservice practioners. Indicated below is a list of the major recommendations contained in the BEH/DPP's document, "Informal Letter to Inservice Practioners." The suggestions which follow are consistent with information in the literature on inservice strategies.

1. Agree with the intent of PL 94-142. Obviously, all relevant inservice experiences must be consistent with the intent of the Education for All Handicapped Children Act of 1975.

2. Address the state's plan for a comprehensive system of personnel preparation. The scarcity of financial resources mandates that duplication of training efforts must be minimized. Most states today have or are in the

process of developing a statewide manpower planning system. All agencies and personnel planning to provide inservice training would be wise to coordinate their efforts with the state personnel plan.

3. Reflect cooperative planning among local education agencies, state education agencies, and institutions of higher education. For optimal training models, the resources, knowledge, and experience of various agencies must be pooled to realistically perceive and deliver appropriate training.

4. Include representatives of training audiences in inservice planning. Inservice experiences designed to "do" something to trainees without involving such personnel in the formulation of the educational plan are often doomed to failure. Assumptions about training needs can be confirmed or modified through various needs assessment processes. Inclusion of trainees and trainers in the planning stages creates an environment of sharing rather than the polar positions of giving and receiving.

5. Demonstrate changes in teacher behavior which facilitate the student's individualized educational program. Quality inservice training must strive to document behavioral changes in the personnel receiving training which will have an effect on services provided to handicapped children as well as impact on the handicapped children themselves.

6. Provide for follow-up training. Documentation of skills developed through training should be monitored by follow-up to trainees' classes. Efforts must be expended to insure that skills developed are transportable and can be generalized to classroom use. On-site follow-up training can help to assure training which will have an impact.

7. Focus on the trainer-of-trainers or multiplier concept. The large number of personnel to be inserviced requires that efforts be expended to develop procedures for training a cadre of trainers. Successful inservice models have been developed in which select peers from various school districts are trained to inservice their respective colleagues.

8. Disseminate inservice plan and outcomes. The sharing of successful and unsuccessful training models serves as a vehicle to assist all inservice practitioners refine training procedures and programs. Participants in this conference will have the opportunity to listen to, interact with, and share their own inservice program.

9. Incorporate administrators in training programs. Focusing on the inservice needs of regular educators without inservicing the administrators frequently creates an environment in which the teachers' desire to provide appropriate physical education experiences is stymied because of administrative non-support. Many of the requirements of PL 94-142 necessitate changes which may require changes in school policies beyond the direct control of the classroom teacher.

10. Evaluate inservice training activities. Documentation of changes in such variables as attitude, skill, and knowledge must be determined for each trainee. Actual performance of teachers within the gymnasium as well as performance of children taught by trainees should be monitored. Evidence of trainee anonymous reaction to the performance of trainers is also essential.

Although these recommendations offer some guidance for the conduct of inservice activities, there are many questions which still must be addressed about the process of inservice delivery.

QUESTIONS ABOUT INSERVICE TRAINING

Indicated below are some thoughts which I have elected to label as questions. Some of these may not be perceived as concerns by you. Perhaps some of the questions might be viewed as issues. Nevertheless, the following are shared to generate discussion and to serve as a vehicle for introducing various concepts which the speakers who follow today and tommorrow will be discussing.

1. What does the term "inservice" mean? The Bureau of Education has functionally defined this term as any type of training provided for a person who is not in a degree program. Is this an acceptable definition? Is it possible to inservice someone who has not received any basic preservice training? Should there be a distinction between inservice and retraining?

2. Who should provide inservice training? Although the answer to this question may be realized through a cooperative endeavor, many local education agencies, state departments, and institutions of higher education are reluctant to engage in a shared experience. Who accepts the leadership role is also a major question.

3. How valid are teacher-perceived needs? Relating training to teachers' needs is critical, and therefore, attempts to ascertain the needs are essential. Is it realistic, however, to believe that regular educators are sensitive to concepts such as mainstreaming and many of the premises which formed the foundation for PL 94-142?

4. How can the needs of teachers in rural areas be met? Methods of utilizing various technology to serve those in remote areas is critical concern for professionals in some states. Different rural inservice models have been developed to provide information about physical education.

5. What types of incentives are successful? Do teachers as a group have a hierarchy of valued incentives or is there a great deal of individual variance? Will administrators and school districts provide requested incentives? Are colleges and universities willing to extend graduate credit for inservice experience?

6. How do we finance retraining efforts? The inservice needs of teachers cannot be supported entirely through federal funds. Will local school districts provide necessary funds? Will state universities and colleges provide extension services at minimal costs? Can cooperative financial plans be arranged to share costs among local districts, state departments of education, and state institutions of higher education?

7. How should inservice delivery models differ for varied populations teaching physical education? In many states, providers of physical education services for the handicapped include physical educators, special educators, and elementary educators. Can we realistically expect each of these groups to possess the same competencies at the same criterion level? If not, what

are the minimal competencies expected for personnel representing various educational backgrounds?

8. Who is responsible for initiating inservice programs? The Bureau of Education for the Handicapped has emphasized that training conducted by colleges/universities must be cooperatively planned with local school districts. Who is responsible for initiating such discussions? Should higher education personnel contact school districts or should they wait until the need for personnel development is perceived by local school district administrators?

9. Should inservice education outcomes be evaluated? Changes in teacher behavior and child performance data are recognized as essential evaluative data by many authorities including BEH. Is it realistic to believe that inservice providers have the time and financial resources to obtain such information? Is it acceptable to utilize children's IEP's as formative and summative measures of inservice outcome? What instruments are used by inservice practitioners? Over what period of time should child and teacher behavior be monitored?

10. Is there adequate manpower to meet the demand for physical education information? PL 94-142 has given physical education visibility and support which it did not have prior to 1975. This has resulted in a considerable number of requests for inservice training in special physical education. What strategies can we develop as a profession to meet this need? Will "quality" inservice training continue if reliance on trainer-of-trainer inservice training models increase in number?

11. Who will inservice parents concerning the physical education requirements of PL 94-142? It is highly unlikely that school districts will assume this function. Should institutions of higher education assume this responsibility or exert maximal effort to encourage and assist formation of parent advocacy groups to assume this necessary function?

12. What training time arrangements permit cost-effective inservice? Is the amount of time a factor or is intensity and quality of training the most important variable? How much time should be allocated for the various training components of attitude, knowledge, and skill development? Follow-up training is deemed essential, but how much and for how long?

In a recent article in Phi Delta Kappan, King and associates, (1977) analyzed the responses of 1,300 teachers concerning inservice training. In reporting highly regarded inservice programs, the most frequently recurring descriptions were "voluntary, developmental, relevant, well-planned, timely, adequately financed, professionally implemented, evaluated, cooperatively planned, responsive, realistic objectives, released time, incentive, and challenging." Conversely, the following descriptors were frequently associated with ineffective inservice efforts: "coercive, remedial, irrelevant, perfunctory, ill-timed, sterile, indifferently presented, blindly accepted, administrator-dominated, worthless, inapplicable, imposition, unrewarding, and boring."

All of those attending this conference are interested in how we can develop quality inservice strategies which will generate positive responses. Fortunately, we have available a select group of presentors who have developed inservice programs consistent with most, if not all, of the descriptors highly valued.

The physical education process as it relates to PL 94-142 is too important to be haphazardly dealt with. We are pleased, therefore, to serve as the host for this conference. It is not possible to discuss and solve all of the major issues surrounding the retraining of physical education teachers during this short two-day period. Hopefully our discussions will serve as the catalyst for additional conferences and meetings within the near future.

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Accountability of Inservice Training for Implementation of PL 94-142

David Auxter

PL 94-142 is a complex law which requires technical skills by the teacher and those who train the teachers. Furthermore, inasmuch as the consumer has the prerogative of due process to affirm civil liberties which are guaranteed to handicapped children, the accountability of the trainer of teachers and teacher performance takes on a new dimension. The issue of accountability of the inservice trainer of PL 94-142 requires knowledge by all parties as to who is accountable to whom and for what. It is the purpose of this paper to explore the accountability dimension of those who provide inservice training to personnel who implement and conduct instruction to the handicapped within the purview of PL 94-142.

Two Types of Accountability

There are several types and aspects to accountability. However, for the purpose of this discussion, two such systems will be posed with one being discussed in detail. One type involves accountability to superiors within administration hierarchies and is usually based upon political, economic administrative expedience. The other type of accountability involves provision for services conducted in such manner which make good constitutional guarantees incorporated within legal statutes of Section 504 of the Rehabilitation Act of 1973 and the Education of All Handicapped Children Act 9f 1975 (PL 94-142).

Diffusion cf Accountability

Hierarchical accountability within a govermental administrative structure is based usually upon administrative expedience. The central focus of this type of accountability is budgetary with responsiveness of subordinates in carrying out functions according to the desires and mandates of superiors. The end result of the implementation of inservice training, which are learning outcomes for the child in the classrooms, is contingent on each person in a chain of command interpreting mandates in the same manner. Furthermore, each person must be competent in the skills required to communicate content and procedures to attain these end results for the handicapped child, which is Special Education in the least restrictive environment. Usually many parties have responsibility in some manner for the outcome of learning of the handicapped child. Therefore, if the child does not learn, the accountability is so diffuse that it is most difficult to determine where corrective procedures should be targeted to rectify training errors. The accountability of the inservice trainer is thus diffused among teachers, trainers, instructional content, and mission to be accomplished as communicated through an administra-

tional hierarchy.

Statutory and Constitutional Accountability

Legal accountability involves performance by inservice training personnel and the teachers which conform to legislation statutes which are the result of constitutional considerations declared by the courts. The legal statutes which are present in Section 504 and in PL 94-142 are the result of class action suits by advocate groups who have, in most cases, tested successfully the denial of constitutional entitlement of handicapped children with regard to appropriateness and setting of their education.

The PARC Consent Degree of 1971, in which the Commonwealth of Pennsylvania was challenged for excluding severely mentally retarded children from the public school, is a case in point. The courts found that all handicapped children could benefit from education and had a right based on the 5th and 14th Amendments of the U.S. Constitution to an individualized program appropriate to their needs in the least restrictive environment. The plaintiffs challenged exclusion of mentally retarded children from school by introducing expert testimony which indicated that employment of task analytical procedures of instructional content and application of learning principles to this content would enable all children to learn. The concepts from this testimony has subsequently been incorporated in the instructional process of the "Individual Education Program" (121a.346) of PL 94-142. The application of this instructional process is to provide equal educational opportunity for all handicapped children so they may benefit from education (Section 504).

In Filalkowski vs. Pittenger (1976) the state of Pennsylvania was charged with contempt of court for failure to implement court mandates of the PARC Consent Decree of 1971. Failure to provide appropriate education to severely mentally retarded children was the focus of this litigation. A major portion of the litigation against the state of Pennsylvania was based on the inability of the state to provide effective and systematic inservice training which would enable the Consent Decree to be carried out in such a manner which would conform with court decisions and the views of the masters of the court.

Therefore, it is the purpose of this paper to discuss the accountability of those who provide inservice training to teachers who are to implement PL 94-142 with special attention of implementation of the Individual Education Program (IEP). This portion of the act makes provision for equal educational opportunity which bears direct relationship to the "equal protection" clause of the 14th Amendment as it applies to education.

ACCOUNTABILITY OF INSERVICE TRAINING

Who is Accountable to Whom

Those who deliver inservice training are specifically accountable to the personnel who are being trained so they may deliver instruction which is in conformance with the IEP of PL 94-142. The ramifications of inappropriate training are considerable. Some of the consequences of a breakdown in

training of personnel are as follows:

1) The personnel will not be competent to implement legally mandated instruction, and the learning of handicapped children will be less than optimal.

2) If the children do not learn optimally, there is a chance for lessened self sufficiency in the necessary community living, vocation, and leisure skills, and greater need for public welfare resources will be required at a subsequent time.

3) There will be reduced efficiency for interfacing other community resources and the home with the instructional program conducted in the schools.

Thus, it is essential that the inservice trainer train efficiently the personnel who have responsibility for implementation of instruction as mandated. This will streamline and make more effective the total scope of delivery of service.

The Inservice Trainer is Accountable for What

The inservice trainers are to be accountable for 1) comprehensive training with respect to roles and content, 2) relevant and effectively constructed training materials and experience, and 3) competency by trained personnel.

The Bureau of Education for the Handicapped (Siantz and Moore, 1977) made it clear that inservice training should be provided in all of its dimensions.

"One-shot workshops are not sufficient; training must address, over time and in depth, the knowledge and skills needed to teach children with a specific disability in a specific subject area, in terms of: systematic teaching from an individualized educational plan; decisions about asssessment procedures, skills, roles, objectives and materials; effective communication and cooperative planning with others, including professionals, parents, and students."

The inservice trainer is also accountable for designing the instruction which is to be conducted in accordance with procedures described under the Individual Education Program (121a.346) PL-142 and for evaluation of special education as it is conducted by the teachers in the field in the least restrictive environment. As prerequisite to the training is the selection of appropriate curricula for the inservice training, appropriate standards of performance for the trainees, and evaluation to determine that the standards have been met through implementation practices required by law. Furthermore, the instructional materials must be available for evaluation and stand the test of the courts as to appropriateness to achieve training objectives which will enable legally mandated instruction.

The bottom line of accountability for inservice trainers of PL 94-142 as indicated by B.E.H. (Siantz and Moore, 1977) is that there must be reports on results of training in the form of Performance data from trainees and children. The nature of the data on the performance of children is clear. The fundamental intent of PL 94-142 are learning outcomes for handicapped children or as the law indicates, "statistically valid surveys", which indicate acquisition of

short term instructional objectives.

Section 504 of the Rehabilitation Act, which was enacted into law on September 26, 1973, is the first civil rights law guaranteeing equal opportunity for disabled Americans. In language almost identical to Title VI of the Civil Rights Act of 1964 prohibiting discrimination on the basis of Race, Color or Creed and Title IX Congress mandated:

"No handicapped individual in the United States shall be excluded from participation in benefit...under any program or activity receiving Federal assistance."

The regulations which were signed by HEW Secretary Joseph Califano on April 28, 1977, cover every state, county, and local governmental program and every private agency that receives funds directly or through a state from HEW, including school districts, mental health/mental retardation units, colleges and universities, hospitals.

HEW's regulations both create new rights, and establish new procedures for hastening the enforcement of existing rights, in the education through the enactment of the "Individual Education Program" of PL 94-142 so these children may benefit from education. Furthermore, it places direct responsibility on those who deliver inservice training to provide for the inclusion of the handicapped in "equally effective" educational programs (Special Education in the least restrictive environment).

Secretary Califano described the great impact of the HEW regulations when he signed them:

"The Section 504 regulations attacks the demeaning practices and the injustices that have afflicted the nation's handicapped citizens. It reflects the recognition of Congress that most handicapped persons can live proud and productive lives, despite their disabilities. It will usher in a new era of equality for handicapped individuals in which unfair barriers to self sufficiency and decent treatment will begin to fall before the force of law...

"In Section 504, the Congress enacted a charter of equality to help end shameful national neglect of handicapped individuals and to translate many of their legitimate needs into legal rights."

PL 94-142 makes it illegal to deny "equally effecitve" educational programming and that handicapped persons he given equal opportunity to participate in the most integrated setting possible.

Equally Effective

It is clear in Section 504 of the Rehabilitation Act of 1973 that educational programming must be "equally effective" for the handicapped as that provided for the non-handicapped.

Equally effective is intended to encompass the concept of equivalent as opposed to identical services. Provision for equally effective service is couched in the accomodation of the individual as expressed by his/her need to attain maximum benefit from a service and implies compensatory aids, services or adjustment in regular programs. Such accomodation affords equal opportunity

to achieve equal results for the handicapped. It makes provision for conditions which provide opportunity to maximize the program benefits to the handicapped (Special Education). The safeguard for "equally effective" in PL 94-142 is the entitlement of the IEP for every handicapped child irrespective of placement.

The individual education program provides for instructional conditions which enable handicapped children to achieve equally effective instruction in education from which benefit may be derived.

It is to be emphasized "equally effective", therefore, involves compensatory considerations which reduce the initial discrepancy in the abilities when handicapped and non-handicapped are compared at the inception of the program as both groups interface with services. The intention of "equally effective" programs is to produce more equitable end results for the handicapped as compared to the non-handicapped.

The central theme implicit in PL 94-142 is educational accountability by the local education agency for the educational progress of handicapped children. In essence, ongoing assessment yields data on present levels of education performance in a sequence of instructional objectives which lead to individually planned goals for each handicapped child. Public Law 94-142 describes a process of implementation which enables objective monitoring and evaluation of the delivery of services to handicapped children. Such a definitive educational practice places great accountability on the inservice trainer for his/her work with teachers. The most common heard explanation by teachers who do not efficiently employ these procedures involve criticism leveled at those who have trained them.

Personnel Development System

There are further implications to PL 94-142 other than accountability for the implementation of the instructional process for delivery of educational services by the teacher and those who provide inservice training. Congress was evidently aware of the stress that such a law would place on those who were to deliver these services. Therefore, they have incorporated into the law a plan and tentative funding for inservice training of teachers. They are most explicit that there should be comprehensive systems for retraining teachers, and all other personnel of the delivery system (See passage from the August 23, 1977 - Regulations of PL 94-142).

"Each annual program plan must include a description of programs and procedures for the development and implementation of a comprehensive system of personnel development which includes: (a) The inservice training of general and special educational , instructional related services, and support personnel, (b) Procedures to insure that all personnel necessary to carry out the purposes of the Act are qualified (as defined in 121a.12 of Subpart A) and that activities sufficient to carry out this personnel development paln are scheduled and (c) Effective procedures for acquiring to teachers and administrators of programs for handicapped children significant information derived from educational research, demonstration, and similar projects, and for adopting, where appropriate, promising educational practices and materials developed through these projects." Thus, those who provide inservice training must be aware of modern

relevant content for training which facilitates the implementation of the instructional process and subject content.

The procedures to be employed by teachers for implementing PL 94-142 require new techniques for instructing children with individualized programming which requires management of a data base from which appropriate instructional decisions can be made to facilitate the educational progress of the handicapped. The inservice trainer of teachers is accountable for producing teacher behavior which can achieve this end.

SPECIAL EDUCATION IS AN INSTRUCTIONAL PROCESS

Prerequisite to accountable inservice training is a thorough conceptual undertaking of Special Education. It is every handicapped child's guarantee to equal educational opportunity and is the compensatory entitlement in education for every child labeled handicapped. It is the central focus of PL 94-142.

Special Education is an instructional process in which specially designed instruction is implemented to meet the unique needs of children, and is conducted in conformance with the instructional procedures of the Individual Education Program Section 602 (19). It is to be emphasized that Congress made clear that Special Education was specially designed instruction to meet the unique needs of the handicapped child as set forth in the Individual Education Program. Thus, the implementation of the IEP is Special Education. Some misconceptions about special education that are dependent upon specific conditions of implementation for the instructional process of the Individual Education Program need to be discussed.

There are several traditional assumptions made about Special Education which need to be re-examined by those who provide inservice training for instruction to handicapped children. PL 94-142 has made previous assumptions about Special Education conditional. The assumptions and conditions are listed below:

ASSUMPTIONS	CONDITIONS UNDER WHICH ASSUMPTION IS VALID
Special education is a classroom where handicapped children are educated.	Not unless they received specially designed instruction to meet their unique needs that include the contents of the IEP of Section 602 (19) of PL 94-142.
Handicapped children receive Special Education.	Special Education is their entitlement, but they are not receiving Special Education unless the instruction is specially designed to meet their unique needs and include the contents of the IEP Section 602 (19) of PL 94-142.

ASSUMPTIONS	CONDITIONS UNDER WHICH ASSUMPTION IS VALID
Handicapped children do not receive Special Education in the regular class.	Special Education is their entitlement, but they are not receiving Special Education unless the instruction is specially designed to meet their unique needs and include the contents of the IFP Section 602 (19) of PL 94-142.
Regular classroom teachers do not administer Special Education to handicapped children in the regular class.	It is the entitlement of every handicapped child to receive Special Education regardless of educational placement. However, they do not receive Special Education unless the instruction is specially designed to meet their unique needs and includes the contents of the IEP Section 602 (19) of PL 94-142.
Non-handicapped children in the regular class do not receive Special Education.	They may receive Special Education if the instruction is specially designed to meet their unique needs and includes the contents of the IEP Section 602 (19) of PL 94-142.
Special Education teachers who are certified deliver Special Education.	Certified Special Education teachers should deliver special education services. However, they do not unless they provide specially designed instruction which includes the contents of Section 602 (19) of PL 94-142.

Thus, Special Education is not a place where handicapped children are taught, or what Special Education teachers instruct. It is a specific instructional process of the Individual Education Program of Section 602 (19) of PL 94-142, which possesses capability of meeting the unique educational needs of the handicapped child. It has been indicated that the IEP must be written statements which indicates specially designed instruction to meet the unique needs of handicapped children which shall include a statement of present levels of educational performance, statement of annual goals, including short term instructional objectives. Furthermore, the specified educational practice and unique instructional content for a specific learner is Special Education. Inservice training personnel must work within this scope to be accountable for the specific projected development of the child.

Inservice training personnel must study closely implementation conditions which are in concert with court decisions and those specified by the courts which have their roots in practices and those specified by the courts. Special Education requires that the unique needs of the learner be met. This is done through measurement of educational performance of the pupil in task analyzed curricula content.

The Uniqueness of the Individual Lies Within Identified Analyzed Subject Matter of the Curricula.

The selection of appropriate pupil curricula for training teachers is essential. It is clear that the instructional process, which evolved from the P.A.R.C. consent degree (1971) which enables all children to learn and development is that of task analysis. Major tasks to be achieved are identified as annual goals (121a.346) and the question is asked "for a child to perform this annual goal, what activities must the learner be able to perform (short term instructional objectives) for each behavior so identified the same question is asked until the "present level of educational performance for that child is commensurate with the instructional capability. Thus, the acquisition of learning tasks are usually sequential, have prerequisites which link together in the acquisition of individual skills. The result of skill attainment and development is the sequential extension of present levels of performance through mastery of the short term instructional objective. Thus, the progress of the individual is continuous and systematic. Implicit in the Act is the identification of tasks to be learned which are the property of subject matter domains. This is necessary because the "present levels of educational performance" and short term instructional objectives must be identified within meaningful subject area for which there are many tasks and analyzed sub areas. Research has indicated schemes for describing subject areas and through measurement of these sub areas the uniqueness of the individual unfolds in each subject area. Such systems for classifying subject matter enables for the planning of the uniqueness of the individual within the subject area. This procedure has wide acceptance in the research community and has wide support as the most efficient method of maximizing independent and self-satisfying living for the handicapped in the courts (PARC, Frederick vs. Thomas). Such a process is implicit in Congressional intent Section 602 (19) of PL 94-142, and 121a.346 of the regulations (a, b, c). This uniqueness of the handicapped within subject matter areas cannot be arbitrarily abrogated by an L.E.A. in predesignated subject areas. Unique needs are met by selecting specific tasks according to pupil needs on a priority from a data base.

Accountability for Training with Appropriate Pupil Curricula. Prearranged Sequential Behaviors from Which Instructional Objectives may be Formulated.

Sequential hierarchical curricula constructed through task analysis for each sub domain of subject matter in physical education serves to assist the management and conduction of the individualized instructional process (121a.346 a, b, c) and enables incorporation of the handicapped in lesser restrictive environments. The constructional effective arrangement of activity into learning sequences of potential short term instructional objectives and the training of personnel to employ the procedures in implementation is central to providing "equal effective" physical education. Task analyzed curricula (prearranged activities in sequence) provide information about what has been achieved by the learner, what he/she can do now (present level of educational objective) to advance to a goal of the IEP.

With such instructional materials, the IEP's can be accurately and expediently developed because the process involves the examination of a profile

of existing behavior among sub areas of subject matter which indicate uniqueness of each student's abilities.

Task analyzed pre-arranged activities which lead to a goal is well accepted practice in all aspects of instructional management and has explicit legal precedent in the PARC consent degree, 1971. The same principle has been incorporated into the I.E.P. and implies pre-planned activities which lead to acquisition of short term instructional objectives of the I.E.P. Such a procedure enables the evaluation of attempts to reach stated goals for handicapped children. Inasmuch as the short term instructional objectives are required to constitute the IEP, it does not make sense that they should be obtained as a result of an "intuitive selection on a choose as one goes basis", but by the systematic and scientific construction of validated instructional materials which possess a research base.

With the employment of such procedures, the quality of the instructional processes for handicapped children can be monitored and evaluated by all, prior, during, and after instruction. Without the task analyzed prearranged activities, evaluation of the instructional process which involves the monitoring of short term instructional objectives selected on the basis of present educational performance is most difficult. Congress is explicit in that there should be frequent monitoring of a handicapped child's progress throughout the school year so that appropriate steps can be taken to resolve problems in educational progress (7), (8), (9). In the event a child is not progressing as he/she should be, there is provision for opportunities for correction of instructional errors before long periods of time (3). The prearranged activities from task analysis enable adequate monitoring of a handicapped child's progress throughout the school year (4), because of the specificity of what is to be taught. Furthermore, prearranged activities which will become short term instructional objectives enable education of the child to continue when he is at home. It also enables the parent to take part in the educational process (5), (6). There are distinct ways in which the utilization of prearranged programmed activities facilitate accountability for inservice training where the learning and development of handicapped children is the evaluation measure of effective inservice training. They are as follows:

1. Prearranged activity sequences assist the inservice trainer in evaluation of the task analyzed curricula so they may be revised to facilitate the learning of children more effectively at a subsequent time.

2. Prearranged sequential activity structures behavior so that relevant activity may be incorporated into the instructional process to expedite the attainment of stated goals.

3. Prearranged sequential pupil activity incorporated into training procedure introduces scientific validity so there can be refined measure ascribed to the educational progress of handicapped children.

4. Prearranged sequential pupil activity from task analysis can be converted into short term instructional objectives which are reproducible. This enhances the accountability for producing child change data and aids in accountability of teachers implementing the instructional process and the teacher trainer.

5. Prearranged sequential activities from task analysis identify instructional activity that are currently within the behavioral repertoire of the handicapped child and that which have already been mastered. It aids in accountability of the instructional process.

6. Prearranged sequential activity facilitates the determination of each pupil at his/her present level of educational performance.

7. Prearranged sequential activity enables indication of progression of pupil ability for self-instruction and self-evaluation during the implementation process.

8. Prearranged sequential activity enables a comparison of where a child is in a sequence of behavior, and where he should be. Has diagnostic significance.

9. Prearranged sequential activity aids placement of handicapped children in the sequence of activities of many sub areas of the curricula and provides direction for the trained teachers to meet for the pupils' unique needs.

10. Prearranged sequential activities enable communication with parents so that instructional programming may be extended into the home.

11. Prearranged sequential activity frees the teacher from construction of much of the curricula so that he/she may manage the instructional process of individualization for each handicapped child.

Facilitates Accountability for the Monitoring of Continuous Educational Progress of the Pupil and Implementation Skills of Handicapped Pupils.

12. Prearranged sequential activities facilitate the monitoring of the instructional delivery system to determine whether instructional objectives of handicapped children are being met. Without the prearranged sequence, it is difficult to determine if instructional behaviors are a part of the sequence, or whether they are activities which have already been mastered.

13. Prearranged sequential activities enable evaluation of the processes of the delivery system against the measurable learning outcomes of the handicapped child so internal revisions in the instructional process curricula and inservice training procedures can be made to serve handicapped children better at a subsequent time.

14. Prearranged instructional sequential activities assist the management system in monitoring educational progress of children through acquisition of the instructional objective enroute to the goals of IEP.

15. Prearranged sequential activities enable the sustained and monitored progression of the child when the instructional setting is changed, and enables the coordination among educators and services.

16. Instructional objectives mastered by children in a prearranged sequence provide valuable information as to when specific educational needs have been met and programming should be discontinued because of fulfillment of a goal.

17. Prearranged sequential activities enable goals to be effectively achieved through sequential prerranged behavior which can be converted into

instructional objectives because instructional efforts toward goals have a direct relationship to the desired results.

18. Prearranged sequential activities enable the systematic application of learning principles, for once there is a clear definition of what is to be taught, concerted efforts among instructional personnel can be directed toward the acquisition of that objective to facilitate the goals of the IEP through applying behavioral technology to control learning processes. This is a necessary prerequisite for service to the handicapped (PARC consent decree).

CONDITIONS FOR INSERVICE TRAINING

Competencies of Inservice Training Personnel

It is imperative that inservice training personnel be competent to conduct training so that implementation personnel may conform to legal procedures and outcomes of the IEP. There are two prerequisite competencies to which must be attained by inservice training personnel. They are: 1) ability to implement instruction in the field according to legal mandates, and 2) ability to impart this operational knowledge through appropriate instructional materials and experiences relevant to the implementaion procedures (see Thiagarajan, Semmel and Semmel, 1974). In the event the inservice training personnel has not achieved these competencies serious consequences could result concerning appropriate implementation by instructional personnel.

Evaluation of Appropriate Training Objectives and Experiences

The objectives and training experiences of the inservice training must bear a relationship to the conduction of special education for handicapped children in the least restrictive environment. The recipient of the inservice training must be capable of producing statistically valid surveys which indicate that instructional objectives have been met. There should be trainee experiences which directly relate to the training objectives which provide measurement compared to standards to determine whether trainees of the inservice training have attained mastery of the competencies.

Practica for Training

The implementation skills which are prerequisite to implementation of the instructional process of PL 94-142 are detailed and specific and can only be achieved through practice. These skills must be achieved under stringent supervision at a practicum site. Therefore, accountability for trainee standards for conduction of such practica (which conforms with the IEP of PL 94-142) and the standards of personnel are essential. If there is not direct follow-up on teaching behavior in the field, and coordination cognitive of instruction and supervision of training in the field, the control of the quality of the trained personnel is reduced.

Evaluation of Personnel

The personnel who are trained must be evaluated in the cognitive aspects of training and in the performance of implementation of the cognitive content in the field training practica or on the job. The evaluation should be of such nature that it described behavioral prerequisites that are to be performed appropriately. Correction must be made by training personnel to rectify errors and increase the proficiency of instructional skills to be allowed by children. Records on the progress of the trainees on their competency and the educational progress of their children should be kept at all times.

Internal and External Evaluation Agreement

The evaluation of the inservice trainers should be sampled by those who provide the external evaluation. (BEH, SEA, or LEA). This will allow discrepancies among evaluations so surface problems can be identified, and strategies hypothesized to resolve discrepancies between actual practice and desirable practice.

Review Certification

Certification should be based on the capability of personnel to deliver legally mandated services to their clients. The instructional practices of the Individual Education Program of PL 94-142 require revolutionary changes in practices for conduction of instruction. The certification of teachers by the states must reflect these changes. The inservice training of skills acquired by trainees should contribute to certification standards.

THE NEW CONCEPT FOR RELATED SERVICES

PL 94-142 is designed to streamline the educational delivery system so that related services builds upon "Special education conducted by the educator". For instance: special education is the primary means by which the handicapped child is provided instruction. It is clear that unique needs are met as a result of an Individualized Education Program (IEP). A plan is formulated and subsequently implemented through the instructional process which includes extension of present levels of educational performance through acquired short term instructional objectives. The children are placed in specific subject content domains at their present levels of educational performance. Then short term instructional objectives are postulated which if attained, establish new present levels of educational performance. The cycle recurrs until predetermined goals are achieved.

The function of the related service is one which enables a child to benefit from Special Education operative in a classroom. Thus, related services must facilitate the measured development of the child as indicated by the individual education program.

Thus, related service must facilitate the measured development of the child as indicated by the IEP.

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Realities of Inservice Education

Claudine Sherrill

> The more ideals a man has,
> the more contemptible is he if
> the matter ends there, and
> if there is no courage shown,
> no privations undergone, no
> scars contracted in the attempt
> to get them realized.
>
> - William James
> American Philosopher
> 1842-1910

Realities are a matter of perception...getting to know ourselves...clarifying what is real and what is not. Why do some university based teacher trainers need and want inservice activities as part of their work load? Why do others find reality within the confines of their campus entirely satisfying? We are all of us dreamers of dreams, but our dreams are conditioned by our realities, i.e., our experiences. We can give our students no more than the fullness and richness of our own realities.

It is my hypothesis that university teacher training (preservice) without interrelated inservice is unreal...full of fantasies, illusions, and generalizations...The ivory towers perpetuate a mythology...a frolicking with facts, theories, and conceptual models when indeed we should be playing with children, testing our realities against theirs, and continuously ascertaining what is real in a world that is constantly changing.

University based teacher trainers desperately need inservice education assignments to keep them alive and real. R.D. Laing, in The Politics of Experience, supports my hypothesis concerning the needs of teacher trainers by reminding us:

> Even facts become fictions without adequate ways of seeing "the facts". We do not need theories as much as the experience that is the source of the theory. We are not satisfied with faith, in the sense of an implausible hypothesis irrationally held: we demand to experience the "evidence".

A Case of Academia-Induced Schizophrenia: Have You Had it Too?

My intolerance of the fantasy world of the university campus has not been constant; it has ebbed and flowed with my own energies and motivations. Thinking

back, however, it seems to be rooted in the schizophrenic experience of combining doctoral study with fulltime teaching in the New York public schools. Each day I taught physical education in classes comprised of 90-150 students, all from diverse backgrounds and many still believing in education as the way "out" of the ghetto or "up" to middle class acceptability. There were so many individual needs to be met and so much I wanted and needed to learn.

Each night, I returned to the university campus, where I lived in a residence hall, and attended class from 6:00 to 10:00 PM. My professors were the acknowledged leaders in teacher education, the writers of books, the creators of knowledge. They held offices in national organizations and frequented meetings all over the world. I believed them to be great, and there was so very, very much that I wanted to learn from them. I listened with care, took meticulous notes, read what they recommended...,and more, wrote the papers they requested...and more. But their realities were not mine. Their global generalities, always so beautifully stated, about principles, methods, and practices did not seem to apply to the specifics of real children and actual teaching.

Some nights...made bold by the pressures of unresolved human problems within my public school day...,I stayed after class and initiated discussions of specifics. Do you know what they told me? These writers of books, these renowned educators, they each said the same: "Class sizes like yours are impossible; the problems you cite have no answers; don't worry about the schools...don't divert your energies from your studies...just hurry and finish your doctorate, and then you can teach in a university!"

I grew introspective, learned to think and talk in double terms, and struggled to preserve the integrity of my perception of realities, mine as well as theirs. A bit of Haiku poetry, found during those difficult times, preserves the memory of academia-induced schizophrenia:

Since I am convinced
That reality is in no way
Real,
How am I to admit
That dreams are dreams?

Those ships which left
Side by side
The same harbor
Toward an unknown destination
Have rowed away from one another.

Saigyo Hoshi

So finally I finished my doctorate, and my reality changed. On my university campus, I taught methods of research, kinesiology, and adapted physical education. My peers (the other teachers) seemed productive, contributing, self actualizing persons in a reality of day to day transmission of knowledge. Me too...no longer was I torn between two worlds, the public schools and the university. The administration expected me to stay on campus, and I did. I THINK I BECAME LESS REAL.

Then, a few years ago, came the era of inservice education...,the reaffirmation that knowledge must be translated into practice and that teacher educators as role models must be able to demonstrate competence in real classrooms with real children. I was alive again, real again!

Some Realities as Seen by Public School Children

When I emerged from the comfortable womb of the university campus, what did I find? A lot of really great teachers and, yes, large numbers who appeared to need help! I have a delightful little book which expresses the needs in children's words. It is called The Geranium on the Window Sill Just Died, But Teacher, You Went On and On. Let me share a few of the verses with you.

The robins sang and sang and sang,
but teacher you went right on.
The last bell sounded the end of the day,
but teacher you went right on.
The geranium on the window sill just died,
but teacher you went right on.

Sometimes I don't pee straight.
And Jimmy next in line always reports me.
I guess Jimmy pees straight all the time.
Is that why he's your favorite?

Yes, Mr. Principal,
I will sing your song.

Cheep, cheep,
you are always right.

Cheep, cheep,
you are very great.

Cheep, cheep,
you are God!

Cheep, cheep,
cheep, cheep...cheep.

I couldn't help it!
I tried to hold it back! I tried hard!
I couldn't help it that I pooped!
Everyone giggled except you.
You gave me a dirty look.
Why didn't you smile if you've forgotten how to laugh?
At least until the redness went out of my face.

Classroom corners--stale and pale!
Classroom corners--cobweb covered!
Classroom corners--spooky and lonely!

Teacher, let me dance in your classroom corner!
Let the outside world in!

Actually, these verses, especially the first and the last ones, could come from university students as well as from young children. Their essential theme is humanism, the expressed need of students to find out what makes teachers and principals tick. Are they human? Are they real? If public school teachers are perceived in these ways, then heaven only knows what undergraduates must think of their university professors!

What Makes Us Real?

Inservice makes us real. Much of our success in inservice, as well as in preservice training, is based on the intangibles, the unmeasureables, or the hard-to-measureables like caring, loving, sharing, feeling, believing, and perceiving. How do we know when we are real? A children's book, The Velveteen Rabbit, which was probably written really for adults, explains it all this way:

> "WHAT IS REAL?" asked the Rabbit one day, when they were lying side by side near the nursery fender, before Nana came to tidy the room. "Does it mean having things that buzz inside you and a stick out handle?"
>
> "REAL isn't how you are made," said the Skin Horse. "It's a thing that happens to you. When a child loves you for a long, long time, not just to play with, but REALLY loves you, then you become REAL."
>
> "Does it hurt?" asked the Rabbit.
>
> "Sometimes," said the Skin Horse, for he was always truthful. "When you are REAL you don't mind being hurt."
>
> "Does it happen all at once, like being wound up," he asked, "or bit by bit?"
>
> "It doesn't happen all at once," said the Skin Horse. "You become. It takes a long time. That's why it doesn't often happen to people who break easily, or have sharp edges, or who have to be carefully kept. Generally, by the time you are REAL, most of your hair has been loved off, and your eyes drop out and you get loose in the joints and very shabby. But these things don't matter at all, because once you are REAL, you can't be ugly, except to people who don't understand. But once your are REAL, you can't become unreal again. It lasts forever."
>
> The Velvetten Rabbit

Did you know when you began to combine inservice responsibilities with those of preservice that your hair would be loved off, your eyes would drop out, you'd get loose in the joints and become very shabby? After days in schools with real children, especially handicapped children with their many and varied special needs, one does go back to the unive sity feeling that way...VERY REAL!

Realities To Be Faced When One Is Real

What are some of the realities that the university based teacher educator must face when he/she is real?

1. Conflict in value systems. Typically, university administrators want their faculty accessible, i.e., on the campus. Likewise, peers tend to become edgy when they perceive one of their "community of scholars" extending the traditional preservice role into inservice. Questions and/or comments one must cope with include, "Why aren't you ever in your office anymore? Or the reverse, "Why, I can't believe it! You're going to work today." Clearly, persons who prefer 100% on-campus/preservice teaching perceive themselves as working harder than colleagues who spend so much time out of their offices.
2. Avalanche of demands. Most of us have learned to cope relatively well with

the "knowledge explosion" in the preservice setting. Campus-based students are accustomed to reading as a viable means of finding answers to questions, and most of them have easy access to the books we recommend. In contrast, the reading habits of experiences teachers in inservice settings vary widely. Most such teachers view the person conducting inservice education workshops and follow up as an "outside expert". Listening to the "expert" is an alternative to trying to keep up with the knowledge explosion through reading. Moreover, experienced teachers typically express discontent with global answers and/or generalizations. They want you to see their particular setting, study their special children, and answer specific questions. The reality is no longer the knowledge explosion we talk about on campus, but the specificity of an avalanche of questions.

3. Need for action research. After a day of interaction in the field with real teachers, handicapped children, and least restricitve environments, the university professor returns to campus with new perspectives and urgencies with respect to research needs. Having felt "his hair being loved off...his eyes dropping out...his joints getting loose," he becomes compulsive about trying to convince colleagues and students to undertake research problems related to the challenges/confrontations he has met in the field. He finds himself increasingly intolerant of much of the basic traditional on-going research when all day long he has been forced to answer questions empirically and tentatively, repeatedly saying, "there's not real research evidence yet, but I think..."

Adele Pavis, in a poem printed in The Physical Educator, captures the essence of these feelings quite well:

> Where are the men who are actually giving
> Competent ideas to improve human living?
> Where are the men whom we can respect,
> Whose complete ideas we can't neglect?
> It seems that in this race to produce
> The ideas that develop are of little use.
> A fragment here, a particle there
> Nothing fruitful, not worth much care
> It might be wise to stop hurrying and see
> Whether publish or perish serve any entity.
>
> -Adele Pavis

4. Compulsion to share. The more time that the inservice education trainer spends away from his university campus, the less relevant become the campus politics, gossip, and other trivia. Eventually, however, he begins to feel lonely and somewhat alienated from colleagues who "used to be his best friend." Now that his interests and priorities are shifting, he wants to share the new realities with his campus friends. Indeed he wants to involve them in inservice activities also; he strives to get them off campus; he attempts to change their attitudes and beliefs.

5. Acceptance that aptitude for inservice education vary. The last reality on which I wish to focus is the need to accept other persons' perceptions of what is real. Many of our colleagues simply do not want to feel "their hair being loved off, their eyes dropping out, joints getting loose..." They do not like getting down on the floor and interacting with real children;

one does get dirty that way...the smells aren't always pleasant...and the uncertainties are often frightening. Nor do they like fighting the extra miles of driving that inservice brings. Most of them have never received specific training to insure success in working with experienced teachers in the field rather than on the university campus. Undoubtedly, the combined role of the inservice/preservice educator is far more difficult than executing a single role.

The University of New Mexico BEH Project on Teacher Education/Special Education has widely disseminated the 18 item assessment tool at the end of this article. It is designed to allow college and university personnel to assess their aptitudes and competencies for inservice education. May I suggest that you take this test before reading the remainder of this article.

What Research Says About Good Inservice Education

One of the best summaries of research literature on inservice education appears in a report of the Inservice Teacher Education Concepts Project sponsored by the National Center for Education Statistics and the Teacher Corps. The findings of this report are summarized as follows in terms of the who, where, how, and why of inservice education:

> WHO: The success of the inservice depends largely on who is conducting it. In descending order, the most successful education teachers are the teacher himself, another practicing teacher, a supervisor or administrator, and a university professor. The teacher is his own best change agent in properly designed inservice teacher education programs. (page 21)
>
> WHERE: Of the two primary locations for inservice teacher education, the school itself is the better place for inservice teacher education than the university. (page 21)
>
> HOW: The means of instruction in inservice teacher education does not seem to be an important variable in the effectiveness of the program, with two positive exceptions: (1) use of videotape methods, especially minicourses and (2) structured use of books. (page 21)
>
> WHY: Success in inservice teacher education programs tends to increase as the objective of the program is increasingly more precisely specified. This is illustrated by the high success rate of minicourses. (page 21)

Lawrence identified seven characteristics which seem to reflect literature trends underlying successful inservicing of teachers. These trends are as follows:

(1) Individualized programs are more likely to accomplish their objectives than programs having the same activities for all participants.

(2) Programs in which teachers take some active role (e.g., generating a set of instructional materials) are more likely to be successful than those in which teachers are limited to a passive or receptive role.

(3) Programs based on a demonstration of materials or technique, combined with supervised practice with some kind of immediate feedback, are more likely to be successful than those in which learnings are stored for future application.

(4) Programs in which teachers provide mutual assistance are more likely to be successful than those in which they are entirely on their own.

(5) Programs occurring as part of an overall staff development plan or general effort of the school are more likely to be successful than one-shot efforts.

(6) Programs of emergent design, in which teachers themselves choose at least some of the goals and activities, are more likely to be successful than programs which are entirely preplanned.

(7) Programs that are self-initiated and self-designed have a high rate of success.

What are Physical Education Needs in Inservice Education?

Two of my doctoral candidates, Dianne Hurley and Sherry Jones, have recently completed comprehensive reviews of literature concerning inservice training as it relates to physical education for the handicapped. Their dissertations are available through interlibrary loan.

On September 22 and 23, 1977, the Division of Personnel Preparation of the Bureau of Education for the Handicapped sponsored an advisory group meeting on personnel preparation needs specifically in recreation and physical education for the handicapped. Of the eight training priorities for physical education established by this group, several related specifically to inservice training. These priorities, reported by Hillman in a January, 1978, memorandum to BEH staff in Washington, D.C. and project directors throughout the country, were as follows:

1. Inservice training of educational policy makers.
2. Inservice training of instructional personnel.
3. Inservice training of community management personnel.
4. Preparation of physical educators for rural areas.
5. Retraining of inservice trainers of teachers.
6. Inservice of paraprofessionals, volunteers, and parents related to physical education.
7. Improved dissemination procedures in physical education.
8. Special projects to develop evaluation instruments, improve physical education to high priority areas, and to develop new training models should be supported.

In light of the increasing emphasis on inservice education needs throughout the country, I strongly believe that both M.A. and Ph.D. preservice

training programs in physical education for the handicapped should develop competencies needed to conduct inservice education. As university professors, we hopefully are serving as better role models than those before us. Each of us, however, must evolve reality for himself...must question, as did the Velveteen Rabbit, what is real? The Prophet addresses the inservice trainer as well as the preservice teacher when it states:

> Then said a teacher, Speak to us of Teaching.
> And he said:
> No man can reveal to you aught but that
> which already lies half asleep in the dawning
> of your knowledge.
> The teacher who walks in the shadow of the
> temple, among his followers, gives not of his
> wisdom, but rather of his faith and his lovingness.
> If he is indeed wise, he does not bid you enter
> the house of his wisdom, but rather leads you to
> the threshold of your own mind.
> For the vision of one man lends not its wings
> to another man!

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Test Your Inservice Aptitude*

The following test is designed to allow college and university personnel to assess their attitudes and competencies for inservice training.

1. How many teachers in your local school district call you by your first name?

   a. None
   b. One to five
   c. Five to ten
   d. Ten to twenty
   e. Twenty to fifty

2. If a teacher asked you a question and you didn't know the answer, you would

   a. Quote research
   b. Make up research
   c. Return immediately to your office
   d. Ask the teacher to look into it and report back to you
   e. Refer the teacher to someone who does know, or who can perform the requested skill successfully

3. How would you most like to spend your week?

   a. Serving on a national task force
   b. Doing hands-on work with children
   c. Collecting data for a research paper
   d. Harassing doctoral students
   e. Attending a national convention

4. How long has it been since you taught in a classroom in the public schools?

   a. One year
   b. Two to five years
   c. Six to ten years
   d. Ten to twenty years
   e. Never taught in a classroom

5. How long has it been since you collected child change data based on the performance of your trainees and graduates?

   a. One year

b. Two to five years
c. Six to ten years
d. Ten to twenty years
e. Never collected child change data
f. One month

6. How did you achieve your professional rank?

a. Research
b. Preservice training
c. Inservice training
d. Writing and publishing
e. Politics
f. Administration

7. How many theories could you implement in practice with a child if called upon to do so?

a. None
b. One
c. Two to five
d. Six to ten
e. Ten to twenty

8. What do you regard as most valuable?

a. Royalties
b. Consultancies
c. Competence in teaching and training
d. Knowing the right people
e. Travel

9. Who should conduct inservice training?

a. Master's level instructors
b. Doctoral students
c. Local education agency personnel
d. Professors
e. Teachers, university personnel, and community resource people

10. Where should inservice training be conducted?

a. At the university
b. In the public schools
c. In a large auditorium
d. At conventions
e. At weekend retreats

11. The outcome of a committee meeting should be

a. Another committee meeting

b. An interim report
c. Action
d. A review of the committee's task

12. Does your special education department most resemble

a. The feudal system
b. Jefferson democracy
c. A public relations firm
d. The Republican national convention
e. A community service agency

13. Whic consultant should be paid most?

a. The one next door
b. The one five to ten miles away
c. The one fifty miles away
d. The one 100 miles away
e. The one 1000 miles away

14. How many school systems in your state have you visited?

a. None
b. One
c. Two to five
d. Five to ten
e. More than ten

15. How many school superintendents in your state do you know?

a. None
b. One
c. Two to five
d. Five to ten
e. Ten to twenty

16. How many personnel of your state education agency do you know?

a. None
b. One
c. Two to five
d. Five to ten
e. More than ten

17. Do you know your state representative of the National Diffusion Network?

a. Yes
b. No

18. Do you know your state dissemination agency of the Council of Chief State School Officers?

a. Yes
b. No

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*Developed by Teacher Education/Special Education Project, Department of Special Educaiton, University of New Mexico, Albuquerque, New Mexico 87131

SCORING: Assign points for each of your responses as follows.

QUESTION	POINTS 0	3	5	8	10
1	a	b	c	d	c
2	abcd				e
3	ade	c			b
4	cde	b			a
5	bcde	a			f
7	def		a		bc
7	ab		c	d	e
8	abde				c
9	bd	a	c		e
10	acd	e			b
11	abd				c
12	acd	b			e
13	e	d	c	b	a
14	a	b	c	d	e
15	a	b	c	d	e
16	a	b	c	d	e
17	b				a
18	b				a

140 to 180 points: You have just received a large grant to develop inservice training programs. Congratulations!

100 to 140 points: You've got the right idea.

70 to 100 points: Your heart isn't in it?

50 to 70 points: Your head isn't in it, either.

30 to 50 points: Re-examine your motives for being in personnel preparation.

Less than 30: Transfer to the Political Science Department.

Practical Implications of Research in Physical Education for the Handicapped for Practicing Teachers

G. Lawrence Rarick

My assignment is to speak on the topic, "Practical Implications of Research in Physical Education for Practicing Teachers." Within this general topic I will comment on what I believe research tells us that is of importance to teachers who have responsibilites for teaching physical education to handicapped children and adolescents as this relates to PL 94-142. Bridging the gap between the researcher and the practicing teacher is not an easy task, one that researchers are often reluctant to assume. I will attempt to bridge the gap by commenting on some of the research with which I have been associated over the past twelve years, giving some attention also to a project which we currently have underway at the University of California, Berkeley. The implications of these research undertakings for PL 94-142 will, I believe, become evident during the course of the presentation.

Let me begin by telling you about an investigation (Rarick and Broadhead, 1976) that we conducted some twelve years ago in three independent school districts in the Houston, Texas metropolitan area. This research project was designed to assess the effects of physical education instruction on the motor, intellectual, social and emotional behavior of educable mentally retarded and minimally brain injured children of elementary school age. The population for the study included all EMR and MBI children 6-13 years of age in the three school districts. Children with known orthopedic handicaps were excluded from the study. Four hundred eighty-one children enrolled in 49 classes, completed the study, 275 EMR and 206 MBI.

The design of the study required that four treatments or programs of instruction be used. Of the four treatments, two involved special physical activity programs, the one being individually oriented, the other group oriented. A third treatment was an art program, included to assess the Hawthorne effect. The fourth treatment served as an experimental control, the usual instruction program. Classes were randomly assigned by disability and age to one of the four treatments.

Standardized measures of motor performance (modified AAHPER Test Battery and measures of hand and arm strength), intellectual developmental (Peabody Picture Vocabulary Test and Bender Motor Gstalt Test), social behavior (Cowell Social Behavior Trend Index), and emotional behavior (Cattel Personality Questionnaire) were administered to all children prior to the start of the instructional program in the fall and again at its termination in the spring.

The experimental programs were taught for approximately thirty-five minutes every school day for twenty weeks by the classroom teachers who had been prepared for teaching the experimental programs through a concentrated two day inservice training session in the fall and by regular inservice meetings. The experimental programs were supervised by full-time experienced specialists,

one in physical education and one in art who consulted with each teacher every week.

The orientation of the experimental physical education program was of particular importance since the length of the project was such that the teaching material had to be worthwhile and stimulating. Not only were the children to be in active pursuit of the task at hand, but knowledge and understanding of what the children were doing was of import. Thus, emphasis was placed on making these experiences truly educational.

The special art program was included to control for the Hawthorne effect. It should be noted that the involvement of the classes in the art program was one which was not seen by the children as fulfilling a secondary role. This program was planned and supervised with equal thought as that of the physical education programs.

The findings of the investigation can be summarized briefly as follows:

1. Special treatment in the way of well designed programs of physical education or art elicited greater changes in motor, intellectual and emotional behavior of retarded and brain injured children than occurred from the usual instructional program.

2. Of the specially planned experimental programs, the physical education programs demonstrated a superior role in modifying motor performance, the art program indicated a superior role in modifying emotional behavior of the younger children, and the programs played a similar role in modifying the intellectual behavior of the children.

3. The physical education program which was oriented towards the individual rather than the group was more successful in eliciting change in the motor, intellectual, and emotional parameters of the behavior of the children.

3. That the handicapped children thoroughly enjoy this type of program, namely a program with a movement education approach.

In view of my partial dissatisfaction with the motoric tests that we used in the Houston study and my unhappiness with the tests that are more or less traditionally used to assess motor functions of children, we next embarked on a research project (Rarick and Dobbins, 1976), to study the motor behavior of normal and EMR children with two major objectives: 1) to develop an assessment instrument with construct validity, and 2) to assess the motoric abilities by age and sex of normal and EMR boys and girls, the former in the age range six to nine years, the latter in two age ranges, six to nine years and ten to thirteen years. Hypothesizing that the motor domain of humans is made up of certain basic components, factors upon which specific skills depend in varying degrees, we formulated a factor structure which we believed would logically encompass a major part of the motor domain of children. While we know there is a good deal of specificity in specific skills, there are, we are quite sure, underlying components which are needed in varying degrees for the successful execution of such skills. The factors with the tests selected to assess each factor are shown in Table 1.

* used only in EMR study
° used only in TMR study

TABLE I Test Groups According to Hypothesized Factor Structure of the Motor Domain

I. Static Muscular Strength

1. Grip Strength Right
2. Grip Strength
3. Cybex Elbow Flexion
4. Cybex Elbow Extension
5. Cybex Knee Flexion
6. Cybex Knee Extension

II. Explosive Muscular Strength

*1. Vertical Jump
2. Standing Broad Jump
3. 35 Yard Dash (5-35)
4. Bicycle Ergometer With Resistance (10 seconds)
5. Softball Throw (velocity)

III. Muscular Strength-Endurance

1. Sit-ups
2. Trunk Raise for Time
3. Leg Raise for Time
4. Bicycle Ergometer Total (90 seconds)

IV. Gross Body Coordination

1. Scramble
2. Mat Crawl
*3. Tire Run
°4. Zig Zag Run
5. Bicycle Ergometer Without Resistance (10 seconds)

V. Cardio-Respiratory Endurance

1. Physical Work Capacity (170)
2. 150 Yard Dash

VI. Limb-Eye Coordination

°1. Pursuit Rotor at 10 RPM
2. Pursuit Rotor at 20 RPM
*3. Pursuit Rotor at 40 RPM
4. Target Throw Horizontal
5. Target Throw Vertical

VI. Limb-Eye Coordination (cont,)

°6. Light Buttons
°7. Soccer Ball Catch
°8. Round Target (Ball Toss for Accuracy)

VII. Manual Dexterity

1. Minnesota Manipulative Test (Preferred & Non-Preferred)
2. Purdue Pegboard Test
*3. 2-Plate Tapping Test
4. Ring Stacking Test
5. Golfball Placement Test

VIII. Static Balance

*1. Bass Test
2. Stabilometer
3. Stork Test (Adapted for TMR's)

IX. Dynamic Balance

1. Railwalk Forward
2. Railwalk Backward
3. Railwalk Sideways

X. Flexibility

1. Toe Touch
2. Spinal Extension
3. Spinal Rotation
4. Lateral Spinal Extension

XI. Body Fat

1. Triceps Skinfold
2. Subscapular Skinfold
3. Abdominal Skinfold

XII. Body Size

1. Bi-Acromial Breadth
2. Bi-Iliac Breadth
3. Calf Girth
4. Height (cm)
5. Weight (kg)

The tests were given to some 406 normal and EMR boys and girls in the San Francisco Bay Area. Factor analysis was used to extract the factors from the intercorrelation matrices of the test scores of the normal and the EMR children in their respective age and sex groups. Six factors accounting for the major part of the variance were extracted from the respective intercorrelation matrices of the normal boys and girls and the young EMR boys and girls. These factors identified by their patterns of factor loadings were tentatively labeled, 1) Strength/Power/Body Size, or 2) Gross Limb-Eye Coordination, 3) Fine Visual-Motor Coordination, 4) Fat or Dead Weight, 5) Balance, and 6) Leg Power and Coordination. Five to seven comparable common factors were extracted from the intercorrelation matrices of the older EMR boys and girls respectively, but only four of these factors in each of the two groups met the specifications of the factors listed above, namely the first four.

The pattern of loadings on the six comparable common factors in the four groups of normal and younger EMR children were strikingly similar not only by visual inspection, but also by the magnitude of the cosines among similar factors across subject groups (see Table II). This is evident by the means and standard deviations of the cosines derived from the factor axes of respective comparable common factors. All means were .70 or higher with relatively small standard deviations. Further support for the similarity of the factor structures across all groups is the commonality of definers--those variables with high loadings on the same factor across all groups.

In view of our findings on the similiarity of the factor structures of motor abilities of normal and EMR children, a factor structure that was similar for the two sexes and one that did not differ materially between the two age levels of EMR's, we decided to replicate this investigation with trainable mentally retarded children and young adults (Rarick and McQuillan, 1977). This was done with a population of 453 TMR's grouped into four age-sex categories (6 to 10 years, 10 to 14 years, 14 to 18 years and 18 to 21 years).

The number of factors accounting for the major proportion of the variance which was extracted from the intercorrelation matrices of the seven groups of TMR children ranged from six to nine. Due to the small number of subjects by sex at the youngest age group, data for the sexes were pooled for the determination of the intercorrelations among variables.

Visual inspection of the pattern of variables loading on the comparable common and comparable specific factors of the seven subject groups revealed striking similiarities among the factor structures. A quantified comparison of the factor structures of the seven comparable common factors in the seven groups does, in fact, indicate a considerable similiarity in factor structure among these subject groups. Table III gives the means of the cosine values derived from the factor axes of each of the seven comparable common factors of the seven subject groups. While the means are not as high as those reported earlier on the normal and EMR groups, they are nevertheless sufficiently high to indicate a reasonably substantial similiarity in factor structures across all subject groups.

On the basis of the factor loadings, the seven comparable common factors were tentatively named 1) Body Fat, 2) Fine Visual-Motor Coordination, 3) Balance, 4) Upper Limb-Eye Coordination, 5) Arm Strength, 6) Spinal Flexibility, and 7) Leg Power-Coordination.

TABLE II Similarity of the Factor Structures of Different Age-Sex Groups in Normal and EMR Children as Reflected by the Means of the Cosines Derived from the Factor Axes of Each of the Six Comparable Common Factors

Factor	Mean	S.D.	Common Definers
1. Body Fat (Dead Weight)	.90	.05	Weight,* Three Skinfolds (Abdominal, Subscapular, Triceps)*, Bi-iliac Breadth°
2. Fine Visual-Motor Coordination	.79	.10	Minnesota Manipulative,* Ring Stacking,* 2-Plate Tapping°
3. Gross Limb-Eye Coordination	.72	.18	Target Throw Vertical,* Target Throw Horizontal,° Softball Velocity°
4. Strength-Power	.77	.14	Knee Flexion and Extension,* Grip Strength Left°
5. Leg Power-Coordination	.76	.12	35 and 150 Yard Dashes,* Scramble,* (no common definers for Older EMR boys)
6. Balance	.70	.16	Railwalk Forward and Backward,* (no common definers for Older EMR Boys and Girls)

*Definer common across all croups
°Definer common across 5 out of 6 groups

TABLE III Similarity of the Factor Structures of the Seven Age-Sex Groups of TMR Subjects As Reflected by the Means of the Cosines Derived from the Factor Axes of Each of the Seven Comparable Common Factors

Factor	Mean	S.D.	Common Definers
1. Body Fat (Dead Weight)	.93	.04	Weight,* Three Skinfolds (Triceps, Subscapular, Abdominal),* Calf Girth,° Bi-iliac Breadth°
2. Fine Visual-Motor Coordination	.76	.18	Minnesota Manipulative,* (preferred and non-preferred hands), Ring Stacking (preferred and non-preferred hands)°
3. Balance	.64	.14	Railwalk Side and Back,* Railwalk Forward,° Stork°
4. Upper Limb-Eye Coordination	.53	.30	Target Horizontal,* Target Circle,* Target Vertical,° Ball Catch°
5. Arm Strength	.63	.23	Elbow Flexion and Extension*
6. Spinal Flexibility	.73	.13	Lateral Spinal Extension,* Spinal Extension°
7. Leg Power-Coordination	.43	.24	Bicycle with and without resistance,* Bicycle 90 seconds°

*Definer common across all groups
°Definer common across 6 out of 7 groups

The findings of these two investigations point up rather conclusively that the domain of motor behavior as represented by the tests employed in our research is made up of rather well defined factors which are remarkably similar in the age range incompassed by these investigations for both males and females regardless of level of intelligence. This is in many respects a significant finding, for it implies that there is a well defined factor structure of motor abilities that is characteristic of humans regardless of age, sex or intelligence. It also has far reaching implications for the development of motor assessment instruments, since, ideally, these instruments should be developed within the framework of identified basic components or factors--tests that would faithfully reflect the basic components and thus be suitable for use over broad age spans, equally applicable to both sexes and to individuals of widely different physical and intellectual levels.

The similiarities in factor structures also have significant implications for curriculum development. If a major goal of curriculum designers in physical education is to help children and particularly to assist the handicapped achieve reasonable proficiency in a broad range of motor skills, then how better to realize this end than to focus attention at an early age on the development of the basic components and movement patterns that underlie the many skills that children of widely different intellectual levels are expected to acquire. Thus, curricula would be oriented largely to programatic activities based largely on the basic components, utilizing frequent assessments to determine individual progress and future instructional needs. It is obvious that such an approach would be particularly important for the mentally retarded in view of the need for improved motor functioning of these children.

The last investigation that I will refer to is now in its third year and is designed to ascertain the impact which an individualized physical activity program will have on selected motor and cognitive functions of institutionalized and home-reared trainable mentally retarded children and young adults. The investigation also provides the opportunity to examine the extent to which initial motoric dysfunction is related to the individual's physical and behavioral development and the effects which motoric training will have on the magnitude of this dysfunction and the concomitant development of other behavioral traits.

The three year three month investigation currently involves some 278 trainable mentally children and young adults, ranging in chronological age from six years to 26 years. Of this group, approximately 101 are residents of Sonoma State Hospital (50 miles from Berkely). One hundred seventy-seven are non-institutionalized who attend puhlic special schools in the East Bay Area. Of this group, the majority live with their natural parents, some in fostor homes, and some in a small residential facility. Thus, the investigation provides the opportunity to examine the impact of the special programs on the development of essentially two populations of individuals, those who are fully institutionalized, and those who are educated in public special schools and have relatively free access to the community. The experimental design employs a 2x2x2x3 factorial model--two treatments, children from two environmental settings, two sexes, and three age levels. The two treatments may, for all practical purposes be considered experimental and "control". The experimental treatment is the individualized physical education instructional program offered 40 minutes daily five days each week during the school year. The

"control group" is given an equivalent amount of time for instruction in a well developed arts-crafts-music program. The rationale for this type of control is two-fold, 1) it controls the Hawthorne Effect, and 2) it provides an educational program of equal quality to that received by those in the experimental program without contamination of the experimental treatment (individualized physical education program). Children from two environmental settings, institutionalized and home-reared, were used because it was hypothesized that 1) the impact of the two settings upon the motor and behavioral development of the individuals would be different, and 2) the functional capabilities of those in the two environments would be different--thus the impact of the treatment should differ. A study of this kind would not be complete without examining treatment effects as a function of age level and sex.

The appropriate statistical design to use in an investigation of this kind is a multivariate covariance analysis in which the main effects of treatment for the dependent variables can be tested and the interaction effects of environmental setting, age and sex can be ascertained. The heart of the investigation lies in the instructional programs--the curriculum itself, the instructional settings, and the quality of the instruction. Space will not permit an extensive review of the two instructional programs (the physical education program and the arts-crafts-music program) although a few comments on each are included.

The 100-odd residents at Sonoma State Hospital have been randomly assigned within ability level to five physical education and five art-crafts-music classes. Three teachers within each class provide for a pupil-teacher ratio of approximately 3 to 1, assuring a good base for individualization of teaching.

The remainder of the subjects in the sample attend four special public schools in the San Francisco Bay Area, all within 25 miles of Berkely. Those in the physical education program attend either the Thomas Jefferson School in Kensington or the Pinehaven School in Concord. Those in the arts-crafts-music program attend either Valley School in Alamo or King School in Pittsburg. Physical education instruction in each of the two special schools is provided by a lead teacher employed by the project and two aides provided by the school district--thus, a pupil-teacher ratio equivalent to that at Sonoma. One lead teacher is provided by the project for the arts-crafts-music program for the two special schools, serving as a consultant and itinerant teacher in these schools. The classroom teachers and their aides work with the consultant in carrying out the instructional program. The quality of the instruction is excellent here, and compares favorably to that of the treatment group.

The physical education instructional programs at Sonoma and in the special schools have essentially the same orientation, placing emphasis on improving the basic components of motor performance, those components identified in our earlier research with TMR's which account for the major part of the variance in motor behavior of these individuals. Thus, for each individual, emphasis is placed on activities which call primarily upon a particular component for which the individual has demonstrated through our initial assessment procedures a well defined weakness. Thus, the program is individualized in the sense that the activity orientation is directed either individually or in small groups to the abilities where the greatest need lies. On the other hand, the program is not so fully individualized that group

activities are excluded, but here again, the activities are selected with well defined educational objectives in mind. Prior to the start of the instructional program, a curriculum guide was developed which will undergo scrutiny and revision during the course of our research. The program of instruction has been developed and operates within the framework of the identified basic components of motor performance, namely arm strength, balance, arm-hand-eye coordination, leg power-coordination, and spinal flexibility. Individual profiles based on tests found valid for assessment of these components have been prepared and are used by the teachers in planning the individualized instructional program.

It became clear at the outset that the motor skill level of those in the special schools was superior to that of the residents at Sonoma. Hence, the instructional program at Sonoma has had to focus upon the development and refinement of the most basic movement patterns, using a task analysis approach to assess individual progress. Although those in the special schools are at a somewhat more advanced level of skill development than those in the institution, both groups are making satisfactory gains. Such observations at this point are of course subjective. Within both populations many are successfully participating in gymnastics, tumbling activities, and other body management skills.

The supervisors of the art-crafts-music programs at Sonoma and at the special schools work closely together in planning their programs, the orientation of the respective programs being much the same. The general framework of the instructional program, giving appropriate attention to the wide range of individual capabilities is as follows:

Arts and Crafts Program:

1. Coloring and painting skills, using appropriate colors and staying within boundaries.
2. Competency in using scissors to make simple projects.
3. Tracing simple objects using a stencil.
4. Identifying colors and shapes and having exposure to the characteristics of various art and craft materials.
5. Using glue and paste and positioning pasted items on to various backgrounds.

Music Program:

1. Expressing original responses to rhythm, music and playing instruments using adaptations on Orff-Schulwerke.
2. Performing simple music-listening skills; attentiveness, participation and auditory memory.
3. Developing vocal tone production and singing skills.
4. Exploring tonal characteristics and receiving instruction to playing simple classroom instruments.
5. Exposure to "live" and recorded music performance.

Evaluative Procedures. Essentially two evaluative procedures are being employed in assessing the effectiveness of the instructional programs:

1) a battery of motor tests (16 items) that has been developed to measure the basic components of motor performance, seven measures of body size and body composition, and three tests of cognitive function. The foregoing were given prior to the start of the instructional program and will be given again at the mid-point of the project and administered once again at the conclusion of the experimental period.

2) task oriented measures of motor performance and task oriented assessments of progress in art and music. Such measures are given and will continue to be given periodically to assess progress toward the accomplishment of task oriented objectives in both the physical education and the art education programs.

The instructional programs have from the beginning operated within the general framework of the currently mandated IEP. Periodic assessments utilizing both norm referenced and criterion referenced measures are used to ascertain the child's current performance capabilities. The results of these assessments constitute the basis for individualization of instruction. The tasks or learning experiences assigned to each child are by design within the child's performance capabilities representing records (performance and behavioral), are kept on each child by the teachers which not only help in the setting of realistic goals, but also are of value in interpreting the extent of progress that each child is making.

While it is too early to assess objectively the worth of our instructional programs, comments from teachers, aides, supervisors, and parents encourage us to believe that significant and positive results are being achieved. Mid-project testing has been completed and we are in the process of analyzing the data. Final results of this project should be available by the summer of 1979.

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A View on the Delivery of Inservice Education Relative to PL 94-142

Joseph P. Winnick

There is little doubt that inservice education is and will continue to be a major thrust in the implementation of PL 94-142. Inservice activity is currently flourishing all over the country and will undoubtedly increase in the next two or three years. We in the field of Special Physical Education must be prepared to meet this challenge and this conference should help us. I hope that my comments will lead to a lively discussion at the completion of this presentation. In delivering inservice, I feel we must:

Structure Experiences According to Rules.

It is important that paraprofessionals, parents, administrators, special physical educators, regular physical educators, regular classroom reachers, and special education teachers be educated about PL 94-142. However, one program to meet the needs of all of these groups at one time fails to recognize planning inservice workshops, participant roles and program experiences should be carefully matched.

Distinguish Inservice, Preservice, and Retraining Experiences.

There is a need to carefully distinguish inservice, preservice, and retraining experiences in planning programs. Inservice programs should be based on the assumption that certified physical educators have certain basic competencies. Inservice programs should not attempt to teach lessons #1-#5 in a basic Special Physical Education course. Preservice education should occur as a part of undergraduate and graduate college/university teacher education programs. When physical educators lack or must "refreshen" basic preservice competencies, they should be provided retraining programs. Careful analysis of the meaning of these terms will result in quite different inservice programs.

Make Provisions for Follow-up.

In developing inservice programs, it is advisable to arrange for some type of follow-up. Follow-up may take the form of a one or two-day subsequent conference, a "hot line" to identified consultants, a periodic newsletter, or some other form.

Involve the Handicapped and Their Parents.

Few segments of a program are as inspiring as reactions and comments of the

handicapped themselves and/or their parents. In addition, the perspectives that they bring cannot be as effectively simulated or duplicated in any way.

Use a Variety of Approaches.

To enhance learning, it is helpful to use a variety of methods. Examples include the use of a variety of audiovisual aids, panel discussions, peer teaching, practicum experiences, lectures, lecture/discussion, various self-directed learning approaches, and demonstrations.

Discuss Intramurals and Athletics as Well as Physical Education Instruction.

Although a large part of PL 94-142 relates to instruction, this law and Section 504 of the Rehabilitation Act of 1973 (PL 93-112) also have major implications for intramural and athletic programs. Especially important are implications regarding equal opportunity, integration, facilities, and auxiliary aids.

Stress an Understanding of the Law.

Physical education workshop participants are generally most responsive to practical how-to-do-it segments of programs. These, of course, should be an integral part of every program. However, a clear understanding of the law is vital for the securing of funds to effectively put programs into operation, for advocacy purposes, and for a multitude of legal and educational reasons.

Utilize Peer Teaching in the Conduct on Inservice Education.

Many participants at inservice institutes have had many years of teaching experience. The composite knowledge, skills, and experiences of these participants will generally exceed that of a particular speaker. It is motivational and makes "educational sense" to involve workshop participants in peer teaching. Participants invariably enjoy and receive more from inservice experience when they are actively involved in them.

Select Inservice Faculty Who Have Served in Roles Assumed by the Target Audience.

Workshops for parents of handicapped, paraprofessionals, volunteers, and other target groups are too often conducted exclusively by a staff of faculty or consultants who have never assumed these roles. There is little doubt that credibility, relevance, and general quality is enhanced when individuals serving in these roles are a part of the inservice teaching staff.

Strive for Positive Attitudes.

Perhaps the most important goal in conducting inservice workshops is

to develop in participants, a positive attitude regarding law, its implications, and the handicapped. The ultimate success of PL 94-142 depends on the day-to-day quality of implementation in the classroom. The attitudes of teachers will greatly influence what happens in the classroom. Evidence is now available that attitudes can be significantly changed as a result of inservice education. Participants in Brockport's Project Outreach two-day inservice program not only significantly changed their attitude regarding the teaching of the handicapped in regular classes, but also maintained this positive change four months later. It should be obvious that the nature of inservice experience is more important to attitude change than the length of workshop sessions is. Some attitudes can be changed in a matter of seconds. Attitudes regarding the handicapped are best changed by opportunities to work with them, a witnessing of their abilities, the opportunity to experience or simulate handicapping conditions, and an opportunity to reflect upon the humanistic implications of the law.

Use a Positive Approach in Selling PL 94-142.

Lack of time and money, liability, and preparation of teachers are only a small list of obstacles which lead resistance to full implementation of PL 94-142. In response, workshop staff can respond by stating that "it's the law, and if you're not in compliance, you'll lose funds." Although this is true, it is also true that laws can be changed or modified. Although difficult at times, the preferred approach is to convince participants that the law states what we want and must do and that it is a "boon" rather than a liability to physical education. Workshop staffs must remind participants of the status of education for the handicapped prior to the law; i.e., the social and educational forces that led to the passage of the law. Knowing a child's present level of performance, establishing educational objectives and goals, conducting a program to improve performance, periodically assessing status, and recognizing and guaranteeing the right of each child to be educated in the least restrictive environment are not unreasonable educational expectations!

Stress Techniques of Individualizing and Integrating Instruction.

Successful implementation of "mainstreaming" requires that teachers employ techniques to individualize instruction and techniques to integrate handicapped and regular pupils. There appears to be sufficient knowledge at the present time to individualize instruction in all curricular areas. The problem is to convey these techniques and operationalize them in teaching. Less has been written about ways of integrating the handicapped with regular pupils. This is the focus of the second paper which I shall present.

Needs Assessment Methodologies for Inservice

Jerry L. Harris

In order to conduct an effective inservice training program, the learning needs of the recipients should be determined. I stress the word "learning" as opposed to "nonlearning" needs. Inservice training generally focuses on the attitudes, knowledge, and skills which we want the recipients to learn, rather than on the resources or behaviors of others the recipients think they need. A learning need, then, may be considered as the training required to eliminate a discrepancy between actual behavior and desired behavior. When a discrepancy in behavior occurs, a problem exists. Thus, critical part of needs assessment is problem identification.

The following paper presented by Evan deals with the State's responsibility for overseeing comprehensive personnel development. Although the state should take a leadership role in needs assessment for inservice training, primary responsibility will have to be at the local and regional levels. Table 1 indicates possible levels at which needs assessments might be conducted.

TABLE I

Levels of Assessment

Statewide

District

Group

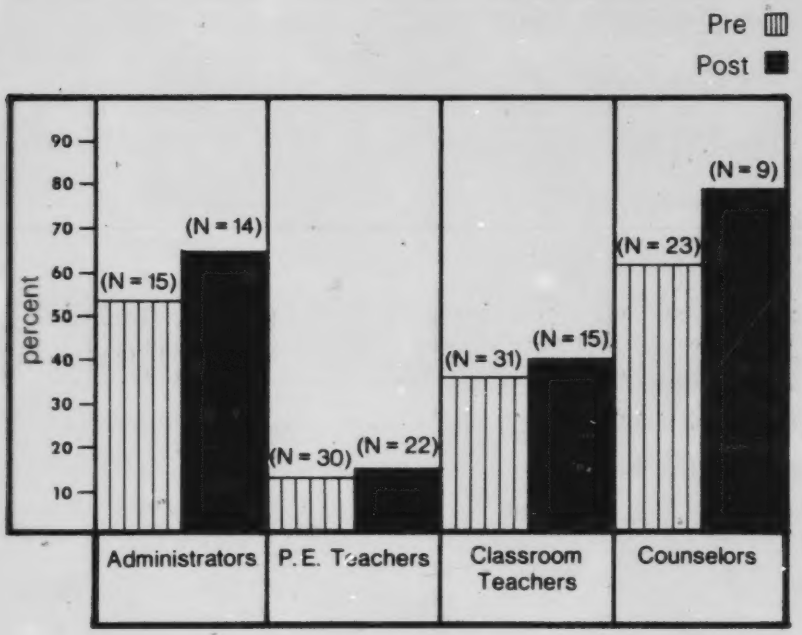
Individual

The purpose for an assessment and the methodologies utilized may differ at each level. A statewide needs assessment would be interested in determining whether there is sufficient qualified personnel, what are the general areas of training need around the state, and what are the priority needs. Groups and individual needs assessments are more likely to focus on specific competencies required and specific problems being encountered.

An example of an assessment of general needs is a study I conducted in 1977. Several districts around the state of Oregon were surveyed by questionnaire on knowledge and beliefs regarding the impact of Public Law 94-142 upon physical education. Figure 1 indicates that while a majority of administrators and counselors were knowledgeable about various aspects of the Law, a low percentage of physical education and classroom teachers were knowledgeable about the Law. This knowledge discrepancy indicated a need by teachers for inservice training regarding content of PL 94-142.

Figure 1

Percentage of Personnel Knowledgeable about PL 94-142



- Knowledgeable is based on a Total Knowledge score of at least 4 of 6 items correct on Part B of the Survey.

For the same study, Figure 2 points out beliefs regarding impact of the Law upon handicapped children. More specifically, concern focused upon an expected reduction in quality of services, especially for severely handicapped children (Item 8). While a problem was thus identified, further clarification of the problem with those faced by it was needed in order to determine an appropriate training need. Item 7 in Figure 3 delineates an area of concern for nonhandicapped children, a possible reduction in teaching time, whereas Item 4 indicates no concern for non-handicapped children. Care must be taken in developing a training need for Item 7. Dealing strictly with the issue of teaching time is a nonlearning need. Viewing the problem as a need for more effective teaching skills for integrating handicapped children with nonhandicapped children would enable focusing on more specific learning needs. Thus a questionnaire can be an effective tool for needs assessment at a state level.

Needs assessment at local levels--districts, groups, and individuals--should incorporate identification of problems as specifically as possible. Selection of a model to provide an appropriate needs assessment depends upon the type of leadership of the administration, the extent of involvement of the evaluator/trainer, and the amount of cooperation of the recipients. Five different models of needs assessment have been identified by Davis and McCallon (1974): (1) authoritarian, (2) moderate authoritarian, (3) democratic, (4) moderate laissez faire, and (5) laissez faire. The authoritarian model is trainer-dominated with training needs determined by the educator and/or organization. At the opposite extreme is the laissez faire, which relies primarily on the participation of the learners; self-direction is stressed. The democratic model is an attempt to achieve mutual agreement of needs by all parties concerned. Both moderate models temper the extremes by giving greater voice to others concerned with the assessment.

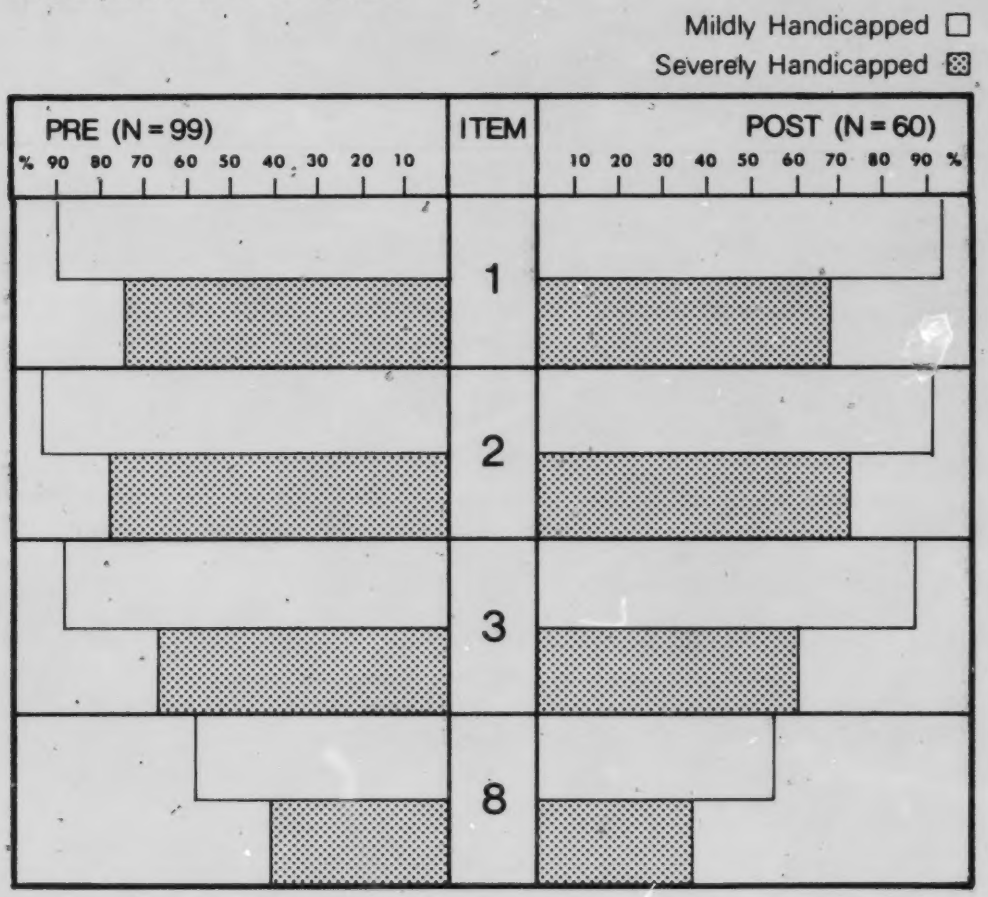
A model provides a frame-of-reference from which to plan a needs assessment. It then becomes possible to select a methodology appropriate to the philosophy of the organization concerned. A variety of procedures have been discussed by professionals involved with needs assessment. Numbers have ranged from six (Foss & Harris, 1977) to thirteen (Browning & McGovern, 1974) to as many as thirty-four (Johnson, 1967). Davis & McCallon (1974), however, believe that all these various strategies can be subsumed under either of two basic methodologies: (1) competency-based and (2) problem analysis.

A competency-based methodology is most useful with an authoritarian-type model. Table II outlines the steps to follow in conducting a competency-based needs assessment. Essentially, this method is a deductive approach (Kaufman, 1975) in which criterion measures, or competencies, are first developed, and then a discrepency is determined between existing and needed behaviors or knowledge. Such an approach has a few advantages. First, a complete set of required learnings is established as an organized sequence. Second, the set of criteria can form a basis for basic training for the role for which they were developed. Third, training can be adapted to individual needs and rate of learning. (An example of effective use of the competency-based method is described in a later paper presented by Harrington). An analogy can be drawn between the competency-based approach and the development of an individualized education program (IEP) for a handicapped child. Under both,

Figure 2

Positive Beliefs of the Total Sample about the Impact of PL 94-142 for:

HANDICAPPED CHILDREN

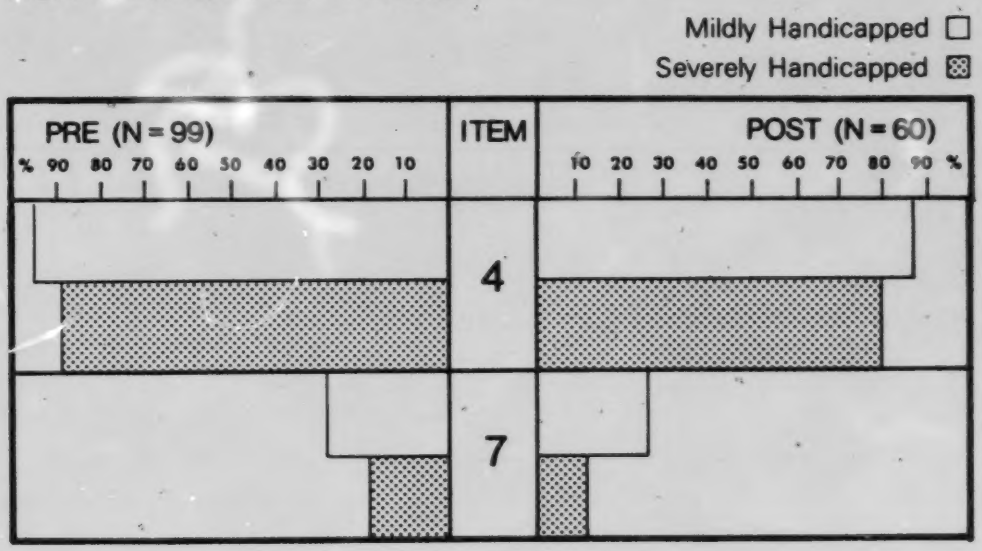


1. Physical Education Programming
2. Social-Emotional Development
3. Peer Acceptance
8. Quality of Services

Figure 3

Positive Beliefs of the Total Sample about the Impact of PL 94-142 for:

NON-HANDICAPPED CHILDREN



4. Understanding the Handicapped

7. Teaching Time

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TABLE II

METHODOLOGIES

Competency-Based	Problem Analysis
1. develop objectives	1. state problems
2. assess performance	2. clarify problems
3. determine needs	3. prioritize problems
4. separate learning from non-learning needs	4. determine needs
5. priortize needs	5. separate learning from non-learning needs
	6. priortize needs

there is first an established set of desired behaviors. An evaluation is then conducted to determine strengths and weaknesses in the desired behaviors. Finally, a training program is developed to reduce the differences between existing and desired behaviors.

There are several potential disadvantages which should be weighed when considering use of the deductive approach for needs assessment. A criterion-based questionnaire which would be developed would, of necessity, have to be limited to a very specific role. This would require much time and expertise in obtaining background information about specific required behaviors. Also, this approach requires relative continuity in training by the learners and educator. Finally, this method tends not to lead to the immediate solution of problems faced by the learners (Davis & McCallon, 1974). This last disadvantage leads directly to the usefulness of the second approach.

The problem analysis methodology can be viewed as an inductive approach to needs assessment. It is most appropriate with a laissez faire model which relies upon participant self-direction. The steps to be followed are listed in Table II. It can be seen that the analysis moves from specifying an existing problem to then setting objectives for an educational program. There are a number of advantages with this approach. It may be used with an ad hoc or an on-going group. The approach is very effective in eliciting consensus needs from a group consisting of persons in various roles. The facilitator for the needs assessment may have little background in the area of learning and may be a different person from the one who does the training. In fact, it is not uncommon for group participants to share solutions to common problems with each other, as well as sharing problems. There are, however, potential disadvantages to this approach. Problem-solving tends to lead to crisis planning rather than to sequenced learning. No problem solving can occur if participants are unwilling to admit that problems exist. By only focusing on problems as they occur, the potential for new opportunities for learning is reduced. Additionally, such an approach generally does not provide for individual needs and rate of learning; it is group-oriented (Davis and McCallon, 1974).

From the above discussion, it should be obvious that there can be disadvantages to being an extremist and following a single approach. For those of you who prefer to be more middle-of-the-road, the democratic model can be utilized by incorporating both the competency-based and the problem analysis methodologies. Project PELRA at Oregon State University has followed the democratic model for both two-day inservice workshops and for ten-week inservice courses. Learner objectives were established by Project and agency staff based upon their judgement of the knowledge and skills which were needed by the inservice participants. During the inservice program, however, a problem-analysis method was utilized to obtain needs based upon current problems being faced by the participants. In this way, current problems were being addressed and new information was presented to the participants.

The problem-analysis method employed by Project PELRA staff is a modification of the small-group process called the nominal group technique (NGT), described by Delbecq, Van de Ven, and Gustafson (1975). This process enables each participant to voice individual problems and to participate in prioritizing group problems which will then lead to selection of needs important to the

participants. Table III shows the stimulus statement used to obtain problem statements from the participants, and the format used to obtain priority problems, and then needs with possible solutions. This structured format gives participants a feeling that they are really "having their say", while at the same time it prevents endless discussion without reaching a goal.

In conclusion, it is my belief that the democratic approach, utilizing both the competency-based and the problem-solving models, will become the most viable means of conducting needs assessments and providing inservice training. Competencies based upon the most up-to-date knowledge and skills are needed to prevent the increasing obsolescence of professional competence. It may now take only five years for new professionals to become half as competent, whereas in 1940 the "half-life" was twelve years (Lindsay, Morrison, & Kelley, 1974). However, research indicates that inservice is more effective when it responds to real, identified needs, rather than to assumptions about what is needed (Washington West School District, 1977). Thus, problem-solving can help make inservice more effective by addressing teacher-perceived needs. One final point to make is that needs assessment is an on-going process for monitoring progress toward goals (Teacher Corps Reports, 1977). There must be follow-up assessments to determine the effectiveness of present training, as well as further training based upon priortized needs.

TABLE III

STIMULUS STATEMENT FOR NOMINAL GROUP PROCESS

I AM UNABLE TO PROVIDE APPROPRIATE PHYSICAL EDUCATION EXPERIENCES

FOR HANDICAPPED CHILDREN BECAUSE I DO NOT HAVE:

(RESPONSES SHOULD BE AS SPECIFIC AS POSSIBLE. THEY MAY RELATE TO KNOWLEDGE SKILLS, ATTITUDES, OR POSSIBLY, RESOURCES.)

MODIFIED NOMINAL GROUP PROCESS

1. In total group, individuals list three responses to stimulus statement.
2. In small groups of 5-8 persons, clarify and consolidate responses from all groups members. Group votes on top 3-5 problems (depending on number of groups).
3. Small groups report back to total group their major problems.
4. In total group, individuals select what they consider the three most important problems from the lists of all groups.
5. Selections from total group are tallied to provide 3-5 high priority problems.
6. Needs and possible solutions are discussed with total group.

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Comprehensive System of Personnel Development

Mary Ann Evan

What is this thing called a Comprehensive System of Personnel Development? That probably depends on where you're standing. You know the tale of the blind men describing an elephant with each man grasping a different part of the elephant's anatomy. One, who was holding a leg of the elephant, described it as a tree. A second, holding the tail, said that the elephant was like a rope. The man whose hand was on the tusk thought the animal was like a spear. The "Comprehensive System of Personnel Development" appears to be something like the elephant.

There are some things that are clear, however, no matter which part of the elephant one is grasping.

1. The purpose of this system is to insure that all personnel necessary to carry out the purposes of PL 94-142 are appropriately and adequately prepared and trained.

2. Adequate inservice training must be available to all personnel who are engaged in the education of handicapped children.

3. All interested agencies, institutions, and organizations must have the opportunity to be involved in the development and revision of the personnel development plan.

How is all this to be done? In Oregon the structure we have chosen is a small working group called the Cooperative Personnel Planning Council for Educational Services to Handicapped Children (CPPC). Council members represent the major interests involved in personnel development for education of the handicapped. The Council works closely with a larger Advisory Panel whose members represent a broad spectrum of interests in personnel development and in the education of children, particularly of handicapped children.

The role of the Council, assisted by the Advisory Panel, is to look at the whole elephant. The Council's structure is intended to enable those most directly concerned with the comprehensive system of personnel development to share their points of view and then to build a system which will meet the law's requirements while at the same time respond to the needs of all of the parties involved.

The Council has considered the use of a method called <u>unified program planning</u> to assist in this task. I would like to outline this method, because I think it expresses quite clearly how the roles and responsibilities of the various interests will interact.

Unified program planning is a series of interlocking matrices. It can

be used manually, or for matters of greater complexity, by computer. I am going to work out a short exercise on one portion of the matrix. This section includes a group of social sectors which have expressed needs for personnel development, and a group of training needs. This is not a complete program, but it will show how unified program planning works.

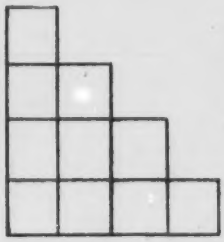
The first diagram (A) shows the results of one informal needs assessment, the Februay Forum on Personnel Development held in Eugene a few months ago.

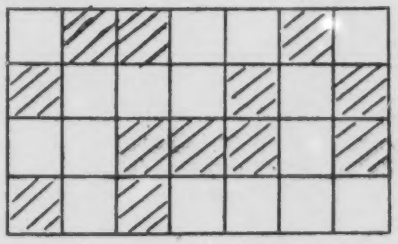
DIAGRAM A

TRAINING NEEDS FOR SPECIAL EDUCATION TEACHERS

SOCIAL SECTORS

GROUP #1
GROUP #2
GROUP #3
GROUP #4





TRAINING NEEDS

EVALUATION/ASSESSMENT

CLASSROOM EXPERIENCE

CONSULTING SKILLS

IDENTIFICATION & USE OF NEW TECHNIQUES

SKILLS FOR WRITING IEP

TIME MANAGEMENT SKILLS

ADAPTIVE PHYSICAL EDUCATION

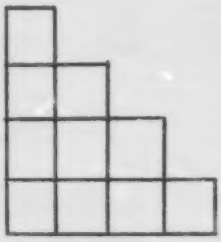
The second diagram (B) shows the potential of one inservice program: Inservice Cadre for Classroom Teachers, a training project which will be operated by the Oregon Department of Education on funds from the Bureau of Education for the Handicapped

DIAGRAM B

TRAINING NEEDS FOR SPECIAL EDUCATION TEACHERS

SOCIAL SECTORS

GROUP #1
GROUP #2
GROUP #3
GROUP #4



TRAINING NEEDS

EVALUATION/ASSESSMENT
CLASSROOM EXPERIENCE
CONSULTING SKILLS
IDENTIFICATION & USE OF NEW TECHNIQUES
SKILLS FOR WRITING IEP
TIME MANAGEMENT SKILLS
ADAPTIVE PHYSICAL EDUCATION

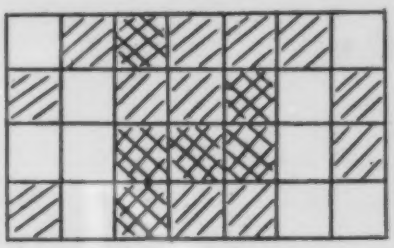
Diagram (C) overlays A and B to show how they match. Cross-hatched squares show points at which this particular program meets needs identified by these social sectors. These squares show needs that are not met by this program.

DIAGRAM C

TRAINING NEEDS FOR SPECIAL EDUCATION TEACHERS

SOCIAL SECTORS

GROUP #1
GROUP #2
GROUP #3
GROUP #4



TRAINING NEEDS

EVALUATION/ASSESSMENT
CLASSROOM EXPERIENCE
CONSULTING SKILLS
IDENTIFICATION & USE OF NEW TECHNIQUES
SKILLS FOR WRITING IEP
TIME MANAGEMENT SKILLS
ADAPTIVE PHYSICAL EDUCATION

When unified program planning is done with computers, it is possible to add many more categories: objectives, activities, agencies, constraints, and so forth. The computer also enables us to include more sources in each category (all available needs assessment data, for example), to look at many more training programs individually or in various combinations, and to construct a model of a training program which must be developed in order to meet existing needs.

What this does then is to give us the capacity for identifying those points at which needs and resources do not match as well as a tool for designing required resources. The Council's task will be to suggest ways in which those required resources can be developed, with all of those interests

represented on the Council playing an active role in this task. The Council will be able to recommend the most appropriate agents for meeting existing needs as well as any changes, institutional or otherwise, that would expedite this process.

What does all of the mean in terms of the roles, responsibilities and relationships of the various interest groups? There are several obvious implications.

First, although the Oregon Department of Education is required by PL 94-142 to take responsibilty for the existence of the comprehensive system of personnel development, it does not follow that the system must represent solely or even primarily the interests of the Department. In fact, unless the system is cooperatively developed and implemented, it is almost certain to be only one more report gathering dust. The role of the Department of Education should probably be described as that of a catalyst rather than that of director of this process.

The second implication is that all of us--the institutions involved--will probably have to make some changes if the system is to meet its objectives. Attention has been focused on the changes PL 94-142 is bringing to handicapped children and their parents, and to the classroom teacher, but none of the institutions involved will be untouched if the law is successfully implemented. There are already some rumblings about possible changes needed in the preparation that teachers are receiving in their undergraduate programs, about the responsibilities of local education agencies for providing inservice opportunities, about modifications for the state. Some of the changes may be painful. Some of them may take years. The question is not whether the changes will come, but whether we will participate in planned change or will resist until change is forced upon us.

Finally, it is important to note that the structure now exists for those of us who are facing these changes to be involved in the planning. If you are from Oregon, I would encourage you to contact your Council representative and/or Advisory Panel member; get on our mailing list; let us hear from you. If you are from another state, find out what is happening there. Not all states are using the same structure for developing the personnel preparation system as is Oregon, but every state has some sort of structure to encourage participation in the planning process. Unless each of us contributes what we see and know and feel, we may never find out what this elephant looks like.

Part II Inservice Models

This section of presentations indicates that there are various ways in which the expertise available at universities may be utilized to meet the inservice needs of school districts. In all the models presented, it becomes apparent that cooperation between state, regional, and local agencies is a necessity. Partly because of geographical differences, the models presented here differ in their manner and content for providing teachers in the field with competencies in knowledge, skills, and attitudes to teach physical education to handicapped students. The following papers therefore present ways to meet the inservice needs of teachers in both metropolitan and rural locations.

Physical Education for the Handicapped: A Field-Based Model Project for Continuous Professional Development

E. Michael Loovis and John L. Taylor

The continuous education of career teachers is a perplexing problem which confronts school districts and universities throughout the United States. As we examined the literature with respect to needs, issues, and models of inservice education, three distinct themes surfaced: first, federal, state, and local agencies are seeking ways of inducing more efficient utilization of teachers and existing resources for effectively dealing with pressing educational reforms. Second, from many vantage points, there is insistence that teachers be given the opportunity and freedom to be involved in deciding, planning, and implementing their own inservice education activities. Third, there is a trend toward cooperative inservice educational efforts which include persons from universities, school districts and agencies sharing resources in a collaborative or consortium type arrangement.

Presently, inservice education is only one term used to denote what teachers do to stay abreast of new educational practices, as well as work at improving their professional status. Alternative usages range from Staff Development (Wilson, 1977), Personal Education (James Report, 1972) Inservice Professional Renewal (King, Hayes and Newman, 1977), Continuing Professional Education (Howsman, 1974), Clinical Supervision (Cogan, 1973) to what we use, Continuing Professional Development (Knox, 1976).

Definitions of inservice education are just as numerous and broad or narrow in scope. Essentially, definitions include one of the following three categories: (1) education which meets the needs of a specific teaching situation called, job-oriented inservice; (2) education to promote professional growth and development for improving knowledge and skills called, professional-oriented inservice; and, (3) education for personal growth and professional advancement called, person-oriented inservice.

A broad definition which is accepted by many experts and embodies all the categories mentioned above is that used by the committee in England which prepared the James Report, Teacher Education and Training (1972):

> ...(inservice education) comprehends the whole range of activities by which teachers can extend their personal education, develop their professional competence and improve their understanding of educational principles and techniques.

An explicit definition which is not appropriate for all inservice education situations, but is very applicable to the purposes we have in mind for this project, is that definition provided by Robert Howsman (1974) in "Governance of Teacher Education by Consortium:"

> "...inservice education is defined as special preparation needed by virtue of being assigned to a situation where

an approach is used which would not customarily be learned in the preservice program nor would the teacher normally have learned it in some other way."

The variety of definitions and array of terms used in the inservice education arena correspond with the myriad of ways inservice activities are arranged and delivered. In reviewing the inservice literature, we found the literature to be voluminous and inconsistent.

It provided very little information about continuous professional development programs which addressed special education needs for the handicapped. Numerous articles exist about pre-service programs (AAHPER, 1973; Conner and Cohen, 1973, Pfeiffer, 1974; Turner, 1974; Sparling, 1976, Bundschuh, 1976; Davies, 1976; Hewett and Fornes, 1977), and numerous suggestions have been made for teacher inservice education. The word "should" proliferated the literature as a strong suggestion that institutions of higher education as well as local and state agencies should provide inservice experiences for teachers to implement PL 94-142.

The most important procedure for delivering inservice education is the traditional workshop (AAHPER, 1976; DiRocco, 1976; Cole and Dunn, 1977; Jansma, 1977), and the two most discussed concerns are the Individualized Educational Plan (IEP) and the Concept of the "least restrictive environment" (Birch, 1974; Dunn, 1976; Harvey, 1976, Stein, 1976; Hewett and Forness, 1977; Solomon, 1977).

As it is, the literature did address the content of teacher inservice education to meet the public law. However, the process and evaluation of the inservice activities was vague and occurred in either one day workshops or institutes lasting several days. Voluntary involvement of teachers is stressed, yet the absolute "all" is used to explain who should be the recipients of the training.

In summary, the best that can be said about teacher inservice training for mainstreaming is the conclusions drawn by the Illinois Office Education Professional Development Center national survey of 70 users and providers of inservice training. In brief, the results indicated that parent, teachers, principals, special educators, students, and district administrators had no common concerns and that there is general confusion among wants, needs, means, ends, and so on (IOE/PDC, 1977). We feel that the prototype inservice model proposed in this project can aid in developing common concerns about the training of persons to provide physical education to the handicapped in the least restrictive environment.

RATIONALE

We believe the continuing professional development (inservice) of school personnel to provide physical education to handicapped children in the least restrictive environment is best achieved through a collaboration among a university, a school district, and a cooperative educational program (Laremont School-a school for special populations). We are essentially proposing an experimental collaboration, the purpose of which is to develop, implement, and evaluate a model for improving methods of meeting the professional needs

of school personnel. For the purposes of this project, school personnel are defined broadly and include: physical educators, regular education classroom teachers, special education teachers, and principals.

We likewise believe that the "boom-bust"-"boom-bust" types of inservice training currently perpetrated against teachers are ineffectual at best (Cogan, 1975). It is our contention that to be meaningful, inservice experiences must possess some of the following characteristics:

> Inservice experiences must be provided that increase the likelihood that teachers will become "more self-helpful and independent rather than helpless and dependent" (Katz, 1977).
>
> Continuing professional development experiences that provide repeated short-term learning experiences are preferable to single episodes (Lippitt and Fox, 1971).
>
> Inservice programs should capitalize on teachers' abilities to teach one another (Bush, 1971).
>
> The majority of inservice educational activities should take place in natural school settings (Katz, 1977).
>
> Programs of continuing professional development must provide teachers with skills to accurately assess the quality of their performance (Meade, 1971).

With the former characteristics in mind, the project has four principal objectives which include:

1. To extend and improve the effectiveness of the District #64, Laremont, and University of Illinois at Urbana-Champaign (UIUC) collaborative model in order to experiment with methods for the continuous professional development of school personnel in meeting the physical education needs of handicapped children.
2. To effect the operation of an experimental model for effectively guiding the continuing professional development of school personnel to provide physical education for handicapped children.
3. To increase the responsiveness of the staff at Laremont School to provide inservice education to some school district personnel for effecting their delivery of physical education to handicapped children.
4. To increase the responsiveness of the faculty and staff of the Department of Physical Education at UIUC to the needs of school personnel regarding their delivery of physical education to handicapped children.

Each principal objective has a number of subordinate objectives which further elaborate the direction of this project. Because of space limitations and because of the importance of the second principal objective to the execution of this project, only those subordinate objectives associated with the second primary objective will be delineated. They are as follows:

1. To support the school personnel in their efforts to identify gaps in their present professional roles which can be modified to represent

improvements in professional practice, e.g., being involved in observational studies to rate patterns of behaviors and to monitor progress.

2. To identify the positive and negative influences associated with the professional setting in which inservice learning will occur with the intention of harnessing some influences to increase the likelihood of professional development. Examples of influences we wish to harness are:

   a. the positive influences that facilitate participation in the project, e.g., the encouragement of the shared relationship between Laremont, District #64, and UIUC and the educational materials and resources available to project personnel.

   b. the negative influences that act as barriers, such as, widespread insulation from educational practices with handicapped children (one major reason for PL 94-142); the overwhelming resistance of some school personnel to mandated school reform.

3. To provide the adult learner with sufficient information about professional practice with handicapped children so he/she can select objectives which are desirable and feasible.

4. To promote the selection of learning activities which enable the achievement of the specifically selected educational objective(s) and which capitalize upon the learner's preferences and style of learning, the selection of any learning activity in the project will include opportunities for the learner to practice the new area of performance in a setting(s) similar to actual performance or in natural school settings.

With these objectives in mind, the discussion will now turn to the content and organization of the project wherein the objectives are operationalized. This will include an overview of the project's eight cycles.

PROCEDURE

The content and organization of the project are devised so each administrator will receive a minimum of 50 hours of training and each teacher will receive a minimum of 125 hours. Upon the completion of the project, it is hoped that each person will have obtained knowledge to provide physical education to handicapped pupils in the least restrictive environment.

Content

First, the content of the project deals with physical education concepts and activities looked upon as needs for children and youth of different ages and handicapping conditions. These needs will be covered in greater detail for classroom teachers, special education teachers and principals. Physical education teachers will receive a review of this information.

Second, the content embarks upon those competencies associated with the specialist to meet minimal competence in (1) assessing and evaluating the physical development and motor behavior status of individuals with a variety of handicapping conditions and be able (2) to develop, implement and formatively evaluate diversified programs of physical education for individuals and groups with a variety of handicapping conditions.

Organization

The project is divided into eight cycles (See Table 1). These cycles have classroom work and field-based practicums which gradually involve inservice personnel into the practice of working with handicapped pupils in Cycle V at Laremont, to develop a physical education program and implementing it with pupils in their own school in Cycle VI. Each cycle builds upon another and gradually adds competence for inservice personnel to attain.

The relevant methods, procedures, techniques, media, and materials used in this project were designed to embrace the unique needs of the adult learner. Ranging from the more specific extension course experience to the less specific staff study groups, the procedures were designed to provide the adult learners with meaningful learning experiences, ones which are built to accommodate their individual learning preferences and styles.

EVALUATION

The evaluation methodology used to judge the success of each project component is the Countenance of Educational Evaluation procedure (Stake, 1967). With the assistance of CIRCE (Center for Instructional Research and Curriculum Evaluation) at UIUC and the Illinois Office of Education/PDC (Professional Development Center) Northern and Southern Regional offices, we will obtain information that can be used to make judgements about the project while it is in its dynamic stages of operation.

The project staff and inservice personnel will be involved in a comprehensive effort to review and improve their work by carefully analyzing the strengths and shortcomings of existing procedures. The procedure will be that of description and judgement of program developmental stages of growth.

Because this project proposes to test a model for providing inservice training to persons for delivering physical education programming to handicapped pupils in the least restrictive environment, it is paramount that evaluation describes the project as fully as possible.

CONCLUSION

This project features a variety of unified educational orientations which represent one philosophical thrust. Foremost, the philosophy of the project supports collaborative efforts which identify and approach problems from unselfish educational platforms. It is believed that a substantive model for the continuous professional development of teachers to meet the needs of handi-

TABLE I

Project Cycles

Project Component	Human Resources	Material Resources*	Facility Resources
CYCLE I ORGANIZATION (July-Aug. '78)	PROJECT STAFF (5) INSERVICE PERSONNEL (15-25) ADVISORY COMMITTEE	Audio-visual equipment Literature & research Supplies & materials	District 64 and Laremont meeting rooms
CYCLE II ** DEVELOPING learning materials start extramural course establish study groups visit exempliary programs start planning symposium (Aug. '78 - June '79)	PROJECT STAFF (5) INSERVICE PERSONNEL (15-25)	Videotaping equipment Printing of learning Other audio-visual learning materials	District 64 and Laremont meeting rooms Visitation to exempliary PE programs for special populations
CYCLE III TRAINING of inservice staff (Sept. to Oct. '78)	PROJECT STAFF (5)	Printing of materials Videotaping equipment Other audio-visual learning materials	District 64 and Laremont meeting rooms and gymnasium
CYCLE IV INSERVICE training simulations, micro-teaching, Practicum (3-4 days per study group during Nov.-Dec. '79)	PROJECT STAFF (5) INSERVICE PERSONNEL (15-25)	Same as above	District 64 classrooms and gymnasiums
CYCLE V Inservice Practicum at Laremont. Start of second semester. Extramural course (3-4 days per study group during Jan.-Feb. '79)	PROJECT STAFF (5) INSERVICE PERSONNEL (15-25)	Same as above	Laremont classrooms, gymnasium and swimming pool
CYCLE VI Inservice Practicum in District 64 schools. Revision of learning materials (March and April '79)	PROJECT STAFF (5) INSERVICE PERSONNEL (15-25)	Same as above	District 64 classrooms and gymnasiums
CYCLE VII Symposium-dissemination *** (May '79)	PROJECT STAFF (5) CONSULTANTS (3) IUE	Multi-media presentation symposium. Information packages For participants About project	Symposia site to be announced
CYCLE VIII Project summarization	PROJECT STAFF (5)	Synthesis of materials	UIUC, District 64 and Laremont

capped pupils in the least restrictive environment is enhanced when roles of educators are determined, because a call to duty has common facets. We believe a common cause for providing physical education to the handicap will aid educators in developing the pupil's physical skills regardless of pupil's developmental and growth pattern needs. We believe that a common cause to improve professional competencies and skills to better deliver instructional methodology to handicapped pupils accentuates personal growth and affects others who will inherit similar responsibilities. The underpinning philosophy which acts as a current throughout the project highlights those moments of self evaluation for self-renewal. This confrontation, which every project participant will have, is believed the key to expanding capabilities to teach handicapped pupils.

As we take a final critical look at the continuous professional development literature, it can be characterized by two statements: (1) there is very little hard research available to support any practice, and (2) what does exist is too general. In John C. Thurber's (1977) evaluation of teacher professional growth programs, he concluded:

> As things presently stand, however, it seems reasonable to argue that the present state of the art of inservice education is sadly underdeveloped despite the notoriety it has received (p. 326).

We concur with these conclusions.

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Inservice Model to Prepare Physical Education Personnel to Instruct the Handicapped

Patrick DiRocco

In recent years, a major emphasis has been directed toward procuring the educational rights of handicapped individuals. Due to the wealth of information (via publications, media, workshops and word of mouth) directed at announcing this process, few educators are ignorant of its existence. However, many educators still do not fully understand all the implications. This paper is directed at one aspect of these implications, the issue of staff preparation.

NEED FOR INSERVICE TRAINING

The Education for All Handicapped Children Act (PL 94-142) has defined physical education as being part of special education. The intent of this legislation is that all handicapped students be given physical education instruction as part of their educational program. Since educational placement for handicapped students should be given within a least restrictive model, it can be assumed that all physical educators will be having some handicapped students educationally placed within their regular classes. The majority of physical education instructors, within our schools, have not had adequate training to implement the guidelines of PL 94-142. The schools, then, have a need to retrain most physical educators in order to satisfy Congress' total intent for special education services.

This retraining need can be met either through graduate study or inservice programs. For many school districts, graduate study is not a very viable way of insuring that all their physical education staff will be adequately trained. In many instances, there are no special physical education programs within the immediate geographic area, thereby making it very difficult to convince many teachers to engage in part-time graduate study. The time needed to complete a sufficient number of graduate courses and staff resistance to forced graduate study are other factors inhibiting reliance upon graduate study as a sole means of retraining. Thus, inservice training is a necessity for which school districts should plan.

The current state of the art of public school systems also supports development of adequate inservice training programs. School enrollments are generally declining throughout the near future. Coupled with this is a constant increase in operating costs for school districts. This would suggest a decline in the number of new teaching positions that would be developed and a continued reduction in the opportunities for teacher mobility. Since an influx of new staff with the necessary competencies for teaching handicapped students cannot be anticipated, inservice intervention to develop these competencies becomes essential.

School districts have a need for a workable inservice model that will

prepare their physical education staffs to teach handicapped children. This model must be designed to help districts meet individual staff member needs and to give subject matter advice that districts can utilize in developing their own program. The model should include: 1) assessment tools that can be employed to determine staff needs, 2) suggested resource materials that can be utilized within a training program, 3) inservice delivery strategies, both for group and individual training, that can successfully upgrade a staff's competencies, and 4) suggested subject material that should be utilized within a training program.

THE PROBLEM

The major problem inherent in a situation where significant changes are required, in terms of teacher skills and perceived roles, is the factor of trying to bring about these changes without eliciting negative attitudes within your staff. The literature reveals evidence that negative teacher attitudes have an adverse effect upon curricular and behavioral changes (e.g., Gorelick, 1974; Stern and Keister, 1977; Willerman, 1971). Teachers need to desire change in order to have a positive attitude concerning the process. While trying to overcome expected negative attitudes, it is important that an inservice training program does not evoke additional ones. Inservice training must meet teachers' individual needs or be viewed as an imposed burden.

Two major factors must be accounted for if adverse attitudes to meeting the mandates of PL 94-142 are to be avoided. The law requires that teachers now work with a population that has not traditionally held a high status within our society. The handicapped population has been viewed by many teachers as a bother, and one to be avoided. Teachers who hold these opinions must be assisted in understanding the benefits and purposes of our new educational model and must be helped to develop true empathy for their handicapped students. Secondly, the law requires that physical educators develop new skills that many may not now possess, such as individualizing instruction and assessing for diagnostic purposes. Because of the accountability component, a very threatening atmosphere could be created for some teachers. Training must include meaningful skill development sessions that each teacher can directly relate to his/her situation. Teachers must see positive change in their day to day ability to fulfill their responsibilities if anxieties are to be reduced. Unless these anxieties are reduced, negative attitudes will result.

AN INSERVICE MODEL

One meaningful service that higher education personnel can provide is to propose adequate inservice models that elementary and secondary schools can utilize in developing appropriate training programs for their staff. The development of models would be a productive way of disseminating some of the expertise found within the university communities. These models, if well developed, would hasten the task of staff preparation required by PL 94-142.

A model should be geared towards maximizing the attainment of individual needs. This does not preclude group training, but suggests individuals should

not be programmed into a training session unless it meets their needs. A model should include suggested assessment tools, resource materials, delivery strategies, and appropriate curricular items.

Assessment

Feelings of inadequate abilities to successfully accomplish new demands can produce negative reactions to change. Assessment of staff members strengths and weaknesses, so as to better place individuals into meaningful programs, are needed. The following areas should be evaluated:

1. Each instructor's knowledge of various handicapping conditions that are most likely to be seen in a public school physical education environment. The assessment should be geared towards the instructor's knowledge of the following three aspects:
   a) What is the condition, from a medical sense?
   b) How does this condition affect a person's ability to move?
   c) What implications does this have in terms of physical education methods and programs.
2. Each instructor's knowledge of legislation (State and Federal) concerned with the educational rights of handicapped individuals. This assessment should encompass:
   a) Information directly related to Physical Education.
   b) Information related to the role and uses of Recreational Services, Physical Therapy and Occupational Therapy.
   c) Information related to general educational rights of which all educators need to be aware of.
3. Each instructor's knowledge of behavior management techniques that are utilized in special programs throughout the district.
4. Each instructor's attitude toward handicapped persons and in regards to working with special populations.

The method of assessment each school district would employ, for each of the above suggested areas, need not always follow a formal written test format. Some information may be gathered through personal conversations (such as knowledge of behavior management techniques) or through the use of a checklist requesting instructors to mark items for which they need information (such as certain items in legislation). Whatever the method of assessment, information concerning staff needs is important if a district is to develop meaningful programs.

The author believes that formal assessment of instructor's attitudes toward special populations should be made. Instructors with very adverse attitudes need support and assistance if they are to be able to successfully teach handicapped students. For the mental health of their teachers and to avoid negative situations for their students elementary and secondary schools

should attempt to discover possible problem situations before they surface. It must be remembered, that until recently, working with handicapped children was a choice and not a mandated requirement for "regular" teachers, and not all individuals are attitudinally ready to accept this role. Those with attitude problems can be eased into the situation through positive practical experience in an attempt to alleviate some of their personally held stigmas toward special populations.

The role of university personnel in the assessment process would be to devise, field test and publish assessment tools that could be utilized by public school districts. A variety of evaluation formats, for each knowledge based area, needs to be devised. This appears to be a research area into which we need to look.

Resource Materials

A model should suggest resources that would be stored in such a manner that indivdiual teachers could borrow or review materials when needed. Materials should be constantly updated and added to. Resources that would be appropriate to gather are:

1. Films that would show appropriate physical education and/or recreational programs, methods and facilities to utilize with disabled individuals.
2. Films that would be used to raise a civil rights or attitudinal issue in terms of the handicapped.
3. Textbook and monograph materials concerned with the issues of adapted physical education.
4. Reprints of relevant journal articles.
5. Assessment tools in the curricular areas the district's physical education program will cover.
6. A list of agencies, associations and personnel (e.g., physical therapist, University Specialist) that teachers could turn to for information and individual consulting.

Higher education personnel could contribute to this need by publishing booklets of suggested resource materials that districts could utilize. Production of appropriate training films and development of adaptive equipment are other avenues of contribution. Many of these efforts can be accomplished in conjunction with public school and community personnel.

Delivery Strategies

The basic core of any adequate inservice training model is the delivery of services. Imposing a homogenous type of inservice regimen will probably not meet all needs. Within a given physical education staff, K-12, instructors will have different teaching schedules, duties and interests. Methods to allow instructors to receive individual or small group training should be planned for.

Traditionally, inservice training has been conducted through the use of periodic group workshops. While this method has some value, it is not adequate in itself to meet all the training needs of a school staff. A delivery system needs to be flexible. Training directors need to be familiar with other delivery methods so that they may produce a successful training program. Higher education personnel have experience with different training methods and could be very helpful in assisting training directors in attaining competencies in the use of various methods.

In addition to the one half to one day workshop that is traditionally used, inservice training programs, for physical education staff members, should include the following delivery strategies:

1. Summer Institutes

   Intensive training on delimited topic areas could be given during concentrated periods over the summer months. These institutes may last from one to two weeks and may be conducted on school property or at rented facilities.

   Training directors need to develop expertise in the way to organize and adequately use summer institutes, so that the overall experiences are very positive for the participants. Examples of necessary skills that directors need to develop are: Planning appropriate training sessions (in terms of subject matter and time); appropriately planning for the training staff's needs; adequate usage of audiovisual material; deciding on appropriate limits for number of participants; adequately planning for participant needs; planning ways of successfully eliciting active participant involvement; planning for materials to be given participants; and being able to successfully direct overall planning from beginning to end.

   The proper use of summer institutes within an inservice training program can be very worthwhile. Higher education personnel's expertise in the use of this training method should be utilized by public school personnel.

2. Peer Tutoring

   Within our elementary and secondary schools, physical educators with various degrees of expertise in working with handicapped students can usually be found. This expertise should be incorporated in the form of peer tutoring. This type of instruction has been seen when local teachers have presented it in workshops. The author believes this contact can be expanded to a more personalized approach.

   If a district decides peer tutoring could benefit some of their physical education instructors, the author would recommend the following methods as ways to maximize the experience.

a) assign the instructor and his/her tutor in a team teaching situation. In this way, they could plan and evaluate together, and the instructor could benefit from observing the tutor teaching in a natural setting. The tutor will also be able to give frequent feedback to the instructor on his/her teaching performance.

b) If team teaching is impossible to schedule, and the instructor is not now teaching the handicapped children, the district could arrange some release time for the instructor so that he/she may observe the tutor teaching handicapped students in the tutor's environment. This arrangement should allow for observation to occur at least once per week.

c) If team teaching is impossible to schedule and the instructor does teach handicapped students, the reverse could be arranged, whereby the tutor is given weekly release time to observe the instructor. This would also make immediate and relevant assistance and consultation available to the instructor.

In order to personalize the experience, the tutor should not be assigned to a large number of teachers in any given term. If more than two teachers are assigned, the tutor should have his/her teaching load reduced.

In addition to on-staff tutors, resource personnel may also be found in neighboring districts. Suggested methods b and c may be plausible ways to utilize skilled teachers in other districts as tutors.

3. Individual Programming

Training directors should also develop methods of providing individual training for staff members who may have particular needs In addition to utilizing peer tutoring, directors should develop resource packets on various subject topics. This packet should include printed and audio-visual materials that are directly related to that topic. Instructors could then review these packets at their convenience. Outside consultants could also be procured to work directly with instructors when needed.

4. Practicum Experiences

For districts who are now servicing handicapped students for the first time, there may be a lack of instructors or programs within the school system to use as training models. When this is the situation, training directors should attempt to discover recreational programs that are offered for handicapped individuals within the community or surrounding area. These should be programs that are offered in the evenings, on weekends, or during the summer. If any discovered program was evaluated to be of quality, the director could then suggest to teachers that they observe or volunteer to work in these programs for a period of time.

This experience could be beneficial in assisting physical education instructors, who have no experience with handicapped students, to better conceive what would be appropriate leisure activities for which to program for.

Thus, an inservice model should include group sessions, summer institutes, peer tutoring, individual programming, and when necessary, practicum experiences. In addition, training directors should develop ways of evaluating the inservice sessions. This evaluation should include feedback from the instructors being trained, and administrative evaluation concerning the quality of programming and instruction given to the handicapped students following inservice training.

Curriculum

The final item that needs to be included, in a workable inservice model, is a decision of topic areas that will be taught. Each district must make this decision itself. Higher education personnel can assist in this process by determining the overall knowledge physical educators need to know and by helping training directors interpret each topic area. The type and amount of training given in each area will depend upon the specific needs of each district's handicapped sutdents and the individual deficiencies of the physical education staff.

In the area of handicapping conditions, it is important that physical educators be aware of the health, learning and movement implications of the following conditions: asthma, auditory impairment, cardiac impairments, cerebral palsy, diabetes, emotional disturbance, epilepsy, learning disabilities, myelomeningocele, mental retardation, muscular dystrophy, obesity, scoliosis, and visual impairments. The above will probably be the most frequently encountered disabilities, however, information concerning other impairments should be given when the need arises. In addition to the health, learning and movement implications, information concerning special teaching techniques should also be given.

Concerning legal information, physical educators should be made aware of federal and state legislation, as they relate to:

1. Who must be served.
2. In what capacity must the students be served.
3. What facility adaptations need to be made.
4. The physical educator's role in the educational placement and curriculum planning of each handicapped student.
5. The concept of least restrictive environment.
6. The concept of equal opportunity.
7. The role of recreational services.
8. The interpretation of accountability.

If individual staff members have a need to be aware of additional legal concepts,

this training should be given.

Training programs instructing participants in behavior management techniques that are successfully used, within school district, to provide learning experiences for emotionally and mentally disabled students should also be developed. Each physical educator should be made aware of special behavior management techniques that are utilized with students they are teaching and be trained in the technique so they can incorporate them into the physical education environment.

SUMMARY

The demand for help in our elementary and secondary schools is great Physical education staffs are looking for ways to upgrade their competence to serve their handicapped students. Although State Departments and Universities are presenting more workshops then in the past, these are not sufficient in themselves to meet the demands of PL 94-142. The ultimate answer lies in each school district's ability to develop a satisfactory inservice program.

In order to be beneficial, an inservice program should attempt to meet individual needs of each staff member. An inservice model should incorporate: 1) assessment tools that can be employed to determine staff needs; 2) suggested resource materials that can be utilized within a training program; 3) inservice delivery strategies for groups and individual training, that can successful upgrade a staff's competencies; and 4) suggested subject material that should be utilized within a training program.

This paper presents the author's opinion concerning a model that public school districts could follow in developing a comprehensive inservice program for their physical education instructors. Higher education personnel, working in the area of Physical Education for the Handicapped, could greatly contribute to this process by developing materials school districts could utilize in their inservice programs, in addition to providing training themselves.

PL 94-142 has given new educational horizons to our handicapped population. How successful the field of Education is in accomplishing these goals, will, in part, depend upon the quality of personnel preparation that is given. Let us commit ourselves to making the field of Physical Education a leader in this affirmative process of meeting the educational needs of our handicapped population.

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Project Stop-Gap: A Model Staff Development Program for Physical Educators Through Inservice Training

James S. Horgan

Project: Stop-Gap, as it operates at Temple University, has been devised to provide inservice training in physical education (for handicapped children) to physical teachers in Southeastern Pennsylvania. Of the approximately 1700 physical educators within the region, an overwhelming majority are benefiting from this additional training. The inservice training design places emphasis on both the theoretical base of knowledge and the practical application thereof, in order to enable the "target" area physical education teachers to develop and implement a competency-based physical education program (Hawkes, 1968; Swisher, 1964). This implementation is oriented towards accommodation of handicapped children in accordance with the mandates of PL 94-142 (Federal Register, August 23, 1977).

Traditionally, staff development via inservice training activities have been developed totally "in-house" and therefore, the variety of programs offered have been confined either within each school system or more specifically, within each school. As a result of the latter, Project: Stop-Gap was conceived to offer a "novel" approach to inservice programming, and hence, staff development. The operating structure is unique for an inservice program in that it was contrived to facilitate a cooperative effort between all resources that have potential for making a contribution to this effort (Martin, 1972).

One of the above mentioned resources includes Temple University's "Project" staff and faculty. Stop-Gap is responsible for organizing and directing the inservice component. A second and equally important resource includes all of the cooperating local educational agencies (LEAs). These educational institutions provide ongoing input to the project as to their present and "emergent" training needs.

An additional resource is comprised of the Stop-Gap trainees who act as a "bonding agent" between the first two principle resources. The trainees are professional physical education teachers who are currently receiving supplementary training (graduate level) as educational specialists through the Stop-Gap Training Program. This group acts as both resource specialists for the project in general, and specifically for the purpose of developing and implementing the project's inservice training curriculum in their respective districts.

Another resource category consists of an area inservice curriculum advisory committee composed of an interdisciplinary team of professionals and lay people. Representatives on the advisory committee include: (a) eight public school physical education teachers and/or administrators; (b) two parents of handicapped children; (c) one university special educator; (d) one representative from early childhood/pre-school education, and; (e) three at-large representatives chosen from any of the categories previously

mentioned. The committee serves as an advisory body during the project's inservice curricula development, and as the preliminary approval committee for the inservice curricula.

One final resource related to the project is the State Inservice Curriculum Council. This body is a sub-division of the State Department of Education, and is composed of educators and State Education Department officials. Once the preliminary approval of the inservice curricula has been secured by the Area Inservice Advisory Committee, the Inservice Curricula is then forwarded to the State Inservice Curriculum Council, whose prime responsibility is to review and to take appropriate action upon the adequacy of the inservice curricula proposed. When approved, the State awards inservice credit to all participants. Furthermore, the Council acts as an independent monitoring body, evaluating the effectiveness and adequacy of the program (on a continuing basis) as long as the inservice curricula are in operation. Thus, the structure of the inservice certification component receives active and ongoing input from a variety of sources. Where deficiencies are identified, accommodations are made to compensate and/or correct.

Presently, the inservice training activities have been developed in preparation for limited implementation in the Fall of 1978. The training design involves ten discrete curricula, that are outlined in the listing to follow:

1. General Considerations Curriculum -- This curriculum is unique in regard to the nine subsequent curricula in that it deals with an overview of competency-based education and the role of the physical educator under the mandates of Public Law 94-142.
2. Mental Retardation.
3. Early Childhood.
4. Specific Learning Disabilities.
5. Hearing Impaired.
6. Visually Handicapped.
7. Emotionally Disturbed.
8. Orthopedically Handicapped.
9. Multi-handicapped.
10. Other Health Impaired.

The format of each inservice curriculum employs a competency-based approach to training (Creamer and Gilmore, 1974; Freischlag, 1974). Curriculum implementation is accomplished only through the cooperative efforts of the five previously described contributors (resources) and specifically the local educational agencies which provide input to the project as to their respective "emergent" needs (Needs Assessment). Each curriculum within the inservice program is composed of specific components that are similar, except for the general considerations curriculum which, as stated earlier, is unique. The following is a listing of the components that are common to the remaining nine curricula.

I. Entry Level Assessment is a written (objective) assessment of present knowledge in the specific curriculum area that is administered at the beginning of each curriculum session. This assessment provides data that is used to assess the entry-level competency of each inservice participant in each of the respective curriculum applications. Also, it provides a base for comparison in assessing the effectiveness of eacn inservice curriculum upon completion of the session (see Exit Level Assessment). The results of this assessment will also serve to provide information for projection as to needs in subsequent sessions.

II. Didactic Presentation is a competency-based approach for presenting information, necessary to meet the needs of the participants as determined during the prior, entry-level assessment. This component provides the theoretical base of information, related to body-of-knowledge (in each subject area), in order to lay the foundation for the development of sound competencies for application.

III. Practical Application/Demonstration is a presentation and demonstration of skills and strategies presented by the Program Faculty through the use of "live" demonstrations and/or audio-visual facsimile. It provides the inservice participant with the opportunity to observe a variety of alternative strategies that have proved effective in practical situations with handicapped children.

IV. Practical Application/Participation affords the participant the opportunity to put into practice the strategies presented with other participants and, where possible, with handicapped children. The participant is closely observed and supervised by a member of the inservice faculty to assure that the strategies are being effectively employed. This involvement provides the participant with the opportunity to gain practical experience during the session by applying the various strategies that were presented and observed in the Practical Application/Demonstration Session.

V. Discussion and Debriefing is an "open" forum of comments and discussion amongst the inservice participants and Program Faculty (small work-group session). This affords the participant the opportunity to break down and discuss the elements of the techniques employed during the application session. In addition, it provides the participant with the opportunity to clarify the relationship and relevance of the didactic information presented.

VI. Practical Application/Mastery Session strategies and techniques that were employed during the previous application session are reapplied for mastery. Mastery is attempted only under the supervision of the Project Faculty. This provides the participant with the opportunity to demonstrate mastery of one or more of the strategies or techniques observed and/or practiced.

VII. Exit Level Assessment is a written (objective) assessment of knowledge acquired as a result of the inservice training in each respective curriculum. This assessment is made at the end of each inservice session. Employment of this procedure provides data that is used to assess the exit-level knowledge gained by each participant. Also, it provides the acquisition of material presented during the inservice curriculum session. The information

gained as a result of this assessment is used to reinforce and/or re-orient the curriculum content where applicable.

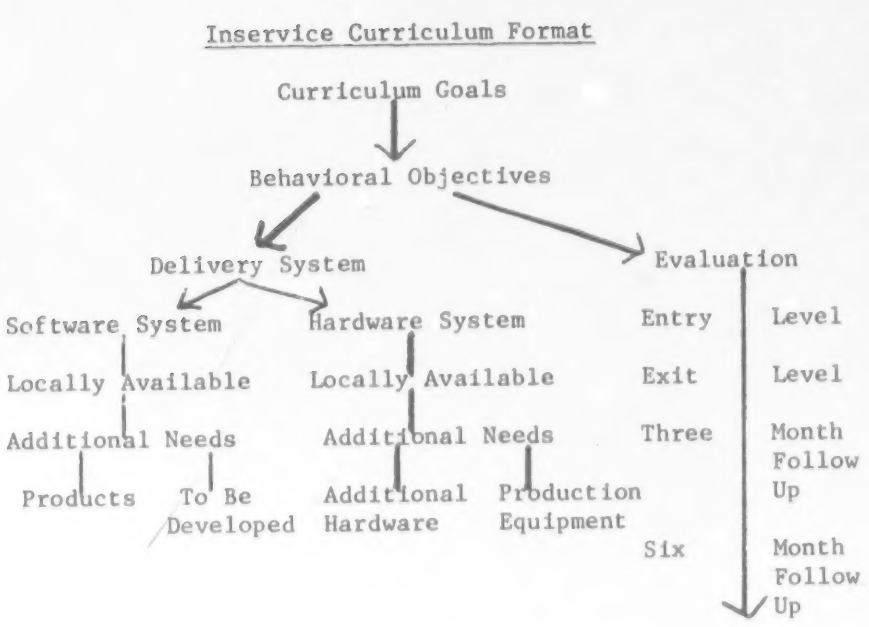
In support of the inservice training effort, the project has organized and will maintain a centralized Audio-Visual Library and Resource Center in the Instructional Materials Center of the College of HPERD at Temple University. The purpose of maintaining such a "Center" is to offer the local education agencies the opportunity to obtain relevant information, materials and aids related to organization and development of physical education activities for handicapped children. The center described consists entirely of software (such as films, cassette tapes, film loops, video-tapes, and written documents) either acquired or developed by the project, and related to organizing and implementing programs for handicapped studnets in accordance with the mandates of PL 94-142. The material is loaned free of charge to all local educational agencies, with the exception of a nominal charge for mailing, handling and insurance.

Figure 1 in the text to follow depicts the inservice curriculum delivery system as a part of a general curriculum format. The delivery format is composed of general curriculum goals. These goals are delineated more specifically by behavioral objectives (Mager, 1975). The behavioral objectives are met and assessment made through employment of preliminary and follow-up evaluation of the progress being made by each participant.

The delivery system is instructional in nature, and employs a variety of selected media from the Audio-Visual Library and Resource Center to supplement and enrich the curricula presentations. In order to assure effectiveness in training, the inservice participant is exposed to a variety of learning strategies, so that an optimal opportunity for acquiring information, ideas and concepts which might be left unlearned, is provided.

The inservice component of Project: Stop-Gap is a rather unique ap roach to the staff development of physical educators who otherwise, because of economic, professional, or personal obligations, would be unable to obtain formalized training (i.e., graduate coursework) and hence, competencies for effective delivery of physical education services to the handicapped child (Swisher, 1964). The project's mission is to aid physical educators in acquiring the knowledge and skill necessary so that they may assume their rightful role, as mandated by law, and in relation to physical education programming for the handicapped child.

FIGURE 1


Inservice Curriculum Format
Curriculum Goals
Behavioral Objectives
Delivery System
Evaluation
Software System
Hardware System
Entry Level
Locally Available
Locally Available
Exit Level
Additional Needs
Additional Needs
Three Month Follow Up
Products To Be Developed
Additional Hardware
Production Equipment
Six Month Follow Up

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A Field Delivery System for Inservice in a Rural State

Wilma M. Harrington

In June of 1977 the Departments of Physical Education at Washington State University were awarded a planning grant from the United States Office of Education/Bureau of Education for the Handicapped.[1] The project was developed in response to a need for a vehicle to retrain physical educators to comply with PL 94-142, the Education for All Handicapped Children Act. The focus of the planning grant was on the development of competencies which would be needed by physical educators for work with the handicapped in the regular class setting. The identification of course work and practica experiences was also carried out under the project. The ultimate goal of the program was to structure a curriculum leading to a Master's degree in Physical Education.

Just as work was beginning on the planning grant another proposal was submitted to the United State Office of Education/Bureau of Education for the Handicapped (Harrington and Engerbretson, 1977). This proposal was designed to implement the curriculum under development. This project has recently been funded. One of the major components of this project is the field-based delivery system for inservice work.

The population of the State of Washington is basically located in rural farm communities. Washington State University is located in the northeastern sector of the state. This makes travel to the university for course work inconvenient and uneconomical for the majority of school personnel. Therefore, we have been exploring the resources available to develop activities which provide inservice opportunities to personnel in a variety of settings as well as allowing the attainment of graduate credit for the experience.

IDENTIFICATION OF ROLES AND COMPETENCIES

The competencies identified for the planning grant described above were adapted from work carried out at Washington State University (Consortium for Teacher Education Standards in Physical Education, 1974). The departments of physical education participate in a consortium with personnel from Richland and Kennewick school districts. The alliance was established in 1971. The teacher education standards for physical education (TESPE) consortium was formed to develop roles and competencies for physical educators. The competency-

[1] USOD/BEH #G0077017017 "A proposal for the development of a competency-based professional preparation program in physical education for work with the handicapped."

based model was adopted in order to respond to teacher certification guidelines established by the Office of the Superintendent of Public Instruction of the State of Washington.

Since the roles and competencies available from PESPE were designed primarily for work with "normal" populations, it was necessary to adapt and add to the existing material. The adaptations were made by adding the dimension of working with the handicapped to the role statements. For example, Program Planner became Program Planner for the Handicapped.

The competency statements and competency facilitating objectives which accomplish the role statements were also modified. These modifications were based on the regulations of PL 94-142, and the Washington State rules and regulations and regarding "education for all children" Chapter 392-171 WAC (Superintendent of Public Instruction, 1976). The original roles and competencies were developed for preservice and continuing certification requirements. Those competencies which could be achieved at the preservice level were omitted, unless they had been added to meet the current federal and state legislation.

Several sources were utilized to develop criteria to select roles and competencies for inclusion in the project. The guidelines for professional preparation for work with the handicapped (Stein, 1973) and the minimum generic standards set for regular and special education teachers in the State of Washington (Superintendent of Public Instruction, 1977b) provided the criteria established. The material from these sources yielded eleven criteria.

The eleven criteria were then condensed into three broad standards for selection. This was done to avoid repetition and verbosity. The resultant criteria were:

The physical education specialist working with handicapped students in the regular class setting should evidence:

1. Knowledge and understanding of the various categories of exceptionality including the nature, needs, and problems of handicapped students.
2. The ability to develop, implement, and evaluate diversified physical education programs for individuals and groups of normal and handicapped children.
3. Competency in communicating with professionals, paraprofessions, parents, students, and others relating to program progress and individual achievement of goals and objective.

The three broad criteria were then applied to the roles, competencies, and competency facilitating objectives. As a result of this application, seven roles for physical educators working with the handicapped in the regular class setting were established.

These roles were:

1. Teacher of physical skills and related activities to the handicapped.
2. Program Planner for the Handicapped.

3. Promotor of Health and Safety for the Handicapped.
4. Public relations interpreter of programs for the handicapped.
5. Advisor for the counseling and guidance of the handicapped with respect to physical activity.
6. Member of a school faculty and professional organizations.
7. Member of a professional team working with the handicapped.

Once the roles and competency materials had been developed they were distributed to four individuals with expertise in the areas of motor learning, adaptive physical education, and therapeutic recreation. This panel of experts was asked to complete one or more tasks. Those who taught courses at Washington State University were asked to identify the competencies which could be achieved through learning experiences in existing courses. They were also asked to add any experiences or competencies omitted from the list provided.

An expert from outside the university was also asked to evaluate the competencies and facilitating objectives. This individual was asked to add or delete material. The outside judge was selected because he was a USOE/BEH project director with expertise in the area of corrective therapy and adaptive physical education.

The panel of experts provided a means for validating the competencies and objectives. They also provided valuable information regarding new courses or activities which would be needed.

A final assessment of the necessity for additional activities was made by examining a statewide needs assessment conducted by the Special Services Division in the Office of the Superintendent of Public Instruction (Superintendent of Public Instruction, 1977a). The results of this survey reported inservice training needs which had been prioritized by administrators, support staff, and teachers. The areas most often identified were assessment, development of goals and objectives, individualizing, monitoring, and mainstreaming techniques.

As a result of these activities, the roles, competencies, and competency facilitating objectives were finalized. The courses available were identified as components of the Master's degree curriculum. New courses needed for the program are under development. Three summer workshops which focus on various aspects of working with handicapped children in the regular class setting are being offered this summer. A field delivery system is currently under development to provide inservice classes off campus.

THE FIELD DELIVERY SYSTEM

One of the major objectives of the project currently in progress at Washington State University is to develop an outreach program. The rural nature of the majority of the population centers and the immediate need for training activities for working with the handicapped necessitated the use of a field delivery system. This was seen as the best means for achieving the project goals.

For a number of reasons, the workshop concept was considered as a summer session option only. Discussion with individuals who have been involved with this type of inservice program indicated that it was not the most desirable method of delivery. The one or two day workshop did not afford the time necessary to provide participants with the needed skills. The concentrated exposure over a short period of time was felt limiting for the provision of hands-on experiences. The summer school session at least allows for increased participation over a longer period of time.

The workshops offered in conjunction with the Washington State project will meet ninety minutes daily over a ten day time period. This is preferable to a ten to twelve hour experience conducted over a two day time span. It will allow for extended activities. It will also afford participants an opportunity to meet in an area equipped specifically for the class activities. On-campus classes provide opportunities for use of reference libraries and facilities not available at a field site.

The summer workshops are seen as a means of providing information which is topical and practical. They are also viewed as permitting a broad population access to needed activities. The field based workshop tends to respond to a limited population. However beneficial the workshop concept appears, it is still limited by the short time period over which activities take place.

An inservice field delivery model appears to have several advantages not found in the workshop. It can be utilized over a longer period of time. It also allows participants to remain in their geographical area, rather than requiring travel to the university.

The system envisioned for the Washington State project will utilize the technical resources available through the Office of Continuing University Studies and the Instructional Media Center. Broadcast television and video tape are two possible means for delivery. These could be accompanied by an amplified phone hook-up which allows direct conversations with the instructor. The telephone can also be utilized to send handwritten materials. A specialized stylus sends the signal over the phone line.

The television or video tape presentation mode can be used in two ways. Actual classes can be broadcast or filmed while in session. In the case of the television broadcast it can be transmitted simultaneously at a variety of sites having receivers. The broadcast can also be taped and viewed at a later time. The video tapes are distributed to field sites to be viewed at a later date. The amplified phone can be used with either to allow student-instructor interaction following or during the viewing of material.

The system under development will utilize the distribution of video taped classes to field sites. Initial considerations involved determining the type of activities needed for distribution; compliance with university requirements for off-campus courses; and the procedures necessary to prepare materials.

Two of the areas identified by teachers and administrators (State of Washington, 1977a) as inservice needs by teachers and administrators (State of Washington, 1977a) as inservice needs were assessment procedures and methods of individualizing instruction. It was determined that familiarity with methods of assessing motor abilities and strategies for individualizing instruction would

directly aid practitioners in contributing to the development of individual educational programs. These two areas were also seen as key competency areas to be developed immediately.

The university requires a minimum of thirty hours of course work for each academic credit awarded. In the case of the field delivery class, the instructor must travel to the field site at least two time during the semester. There are also enrollment quotas. Each field site must have five or more students enrolled to qualify. The site also must have video tape playback equipment and a technician to show the tapes.

One final consideration was made in planning the course. Viewing a two hour video tape weekly over a semester could become extremely boring. Therefore, in planning a course, it will be necessary to develop activities to be carried out by the class during or after viewing the taped lesson. Taking into account the continuous viewing of tapes also indicates that the lesson should be filmed in a variety of settings and avoid the lecture mode as the sole means of presentation.

There are a variety of possible field sites around the State of Washington. The Department of Engineering has been offering field-based courses for the past two semesters. The selection of the sites and promotional considerations are handled by the Office of Continuing University Studies.

The mechanics of the actual filming are being developed at the present time. A master tape of the lesson will be made. Then copies will be made and distributed to the field locations. The master tapes are retained and may be used repeatedly, or they can be revised. The course under development will be offered both semesters during the coming school year. Once the master tapes have been made, the instructor's time will be devoted to travel to the field sites.

There are several advantages to utilizing video tape. The courses can be developed ahead of time. This allows for refining and editing capabilities which an in-person lecture does not. The taping of initial classes can be done early and then subsequent classes can be done at a later time. The flexibility in filming is unlimited in this respect. The field delivery classes generally start two weeks later than on-campus classes. This also allows lead time for filming and preparation.

One of the major questions that comes to mind with regard to the field delivery system is: How much does it cost? The following items must be assessed in terms of cost to determine the expense of such a system:

Master tapes
Copies
Mailing
Technicians' time
Instructor's travel expenses
Projectionists' salaries
Exam Proctors' salaries
Instructional FTE cost

The estimated cost for the production of one master tape and one duplicate

is $125.00. Other costs will be dependent upon salary scales, travel rates, and available personnel.

The amplified phone system can be added to the model for a modest amount. Cost will vary according to geographic areas and phone rates. An initial fee of about $50.00 for installation of a special phone jack is generally charged. Once this is in place, the hook-up remains intact. Add to this an approximate monthly fee of $15.00 for equipment rental. The addition of the amplified phone would permit interaction between instructor and students to take place on a regular basis.

In summary, the use of the video taped course materials was selected as the most appropriate delivery system. The rural nature of the population centers throughout the state all but negates regular travel by the students to the university or by faculty fo field sites. The field delivery system described allows for ongoing participation by several groups of students over an extended period of time.

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Inservice for Rural Areas—Idaho

Ernest K. Lange

The University of Idaho received a Bureau of Education for the Handicapped Training Grant to begin a two-component effort in preparing and upgrading teacher activities in providing physical education to special populations. One component is to develop a preservice master's level program on campus; the other provides inservice activities throughout the state to teachers in physical education and special education.

INSERVICE PLANNING

The inservice element has been developed in three phases. Prior to the selection of activities and development of a plan of action, a needs assessment was conducted with teachers in the state. The needs assessment conducted by school districts resulted in prioritizing needs as expressed by teachers. This led to a Special Study Institute which was conducted in May, 1977 in Boise. Following the Special Study Insititute in Physical Education for the Handicapped, a survey was disseminated to learn in what areas teachers felt they needed inservice training. The assessment requested information sufficient in determining (1) which teachers needed services, (2) what their teaching responsibilities were, (3) specification of certification area, (4) perceived inservice needs, (5) child study team participation, (6) availability of school resource personnel, (7) areas indicated as greatest importance to the teacher in upgrading skills.

STATE EDUCATION DEPARTMENT COOPERATION

State Department of Education involvement was established through the participation of the two consultants for special education and physical education. These two individuals were actively engaged with the inservice plans from the initial stage. Between them they assisted with the formulation and mailing of needs assessment, arranging facility availability, and participating during the workshops.

IMPLEMENTATION

Following review of teacher responses a plan of action was formulated. The intent was to reach as many teachers as possible, with the activities felt most appropriate to their needs, as expressed by the teachers and interpreted by workshop personnel. Operational objectives were established with the recommendation of workshop presenters, based upon the needs expressed.

The conclusion was drawn that the best approach would be that which steadily expanded the number of involved teachers with the least amount of travel inconvenience. Consequently, seven sites were selected at appropriate points around the state so as to serve the largest population possible. Each site utilized a local college or university for its workshop.

The basic goal established was two-fold:

(1) to provide the greatest number of teachers possible with a minimum of foundational information relative to physical education for special education youngsters and

(2) to initiate a more comprehensive plan of action for provision of appropriate physical education, in spite of existing or non-existing conditions.

Not an insignificant aspect of the procedure was the desire to effectively influence the attitudinal outlooks of teachers in their perceptions of handicapping conditions and the nuances of physical education, special education, and their association within Public Law 94-142.

A basic three phase plan of action was arranged:

Phase I (Year I): Workshops at seven sites in Idaho (Spring, 1978), Summer intensive workshop on campus (Summer, 1978), Talent Bank Consultants Pool (School Year, 1978-79).

Phase II (Year II): Continuation of workshops at different locations than those utilized in Phase I (Spring, 1979), Summer administrative workshop on University of Idaho campus (Summer, 1980), Talent Bank Consultant Pool (1979-80 School Year).

Phase III (Year III): Workshops throughout state by demand addressing regular educators (Spring, 1980), Summer coursework for all personnel from Phases I and II (Summer School, 1980), Talent Bank Consultant Expansion (1980-81 School Year).

Personnel

Workshop personnel consisted of instate university faculty, state department of education members, and visiting faculty from regional universities. Specifically, the presentations were assigned by topic to the consultants to the Idaho State Department of Education in Special Education and Physical Education; a physical educator from Oregon State University; a special educator from Portland State University; a joint appointee from the University of Idaho in Special Education and Physical Education. These individuals met briefly the evening prior to the workshop and followed the day's presentations with a discussion preceding return to their respective homes. Additional alterations in programming or planning occurred via talephone conversations and mail.

The selection of dates and workshop sites was made following adjustments for scheduling of public school calendars, presenter commitments, and respon-

sibilities, convention schedules, and other influences. Subsequent to such considerations an agreeable reasonable calendar of workshops was solidified.

Information Discussed

Workshop topics related to the established needs explained by teachers as well as the anticipated necessary information provided by the presenters. This approach assured most appropriate content utilizing the strengths of the discussants in satisfying the basic concerns expressed by teachers.

Each workshop opened with an awareness surveyregarding the general topics to be dicussed. An indication of the teachers' awareness was also provided. Following the survey was a general discussion of PL 94-142 and its origination, intent and impact. Other topical areas were:

Physical education, PL 94-142, and programming,
Assessment procedures and consideration,
Relationship between special education and physical education,
Classroom Management,
Task analysis,
Child Study Team function, and
Evaluation of proceedings.

Evaluation

The evaluation portion served two purposes. Primarily, information was provided from participants to presenters regarding the appropriateness and effectiveness of recently completed activities. Secondly, the interpretation of teacher reaction was used by presenters in critique of themselves and each other leading to more effective operation of ensuing workshops.

Evaluation content considered the impact of the most important elements included in the proceedings. Recommendations for improvement were made by the teachers as they expected the changes to favorably influence other teachers in later workshops.

Site Selection

Workshop sites were selected to coincide with the population distribution throughout Idaho. This resulted in the bulk of the workshops being conducted in the southern part of the state in an east to west direction. Five workshops were held in Rexburg, Twin Falls, Pocatello, Boise and Nampa and two in the northern portion of the state at Moscow, and Coeur D'Alene.

Impact

Considering the rural population distribution, the impact of the workshops on school personnel was quite successful. Teachers had the opportunity to receive instructional opportunities from a variety of personnel without traveling

excessive distances or being inordinately inconvenienced. Additionally, many students, administrators, aides, and parents were able to attend the meetings. The total impact will never be accurately recorded; however, over 240 individuals participated in the various workshops.

Value

Obviously, with the availability of teacher-training workshop activities, and considering the influence these teachers will have in the schools, the school children are the potential recipients of appropriate and valuable educational experiences. The physical education element of the total curriculum provided the special education student will expand in scope to reach more students with greater effect.

In addition to student advantage, there is an opportunity from such inservice activities to increase the professional awareness of teachers. Administrative personnel have the chance to expand their understanding of physical education needs and services pertaining to children with necessities peculiar to their conditions.

Regular educators have the opportunity to become more knowledgeable and understanding of the curricular distinctiveness required by the handicapped. Professionals in other areas, through expansion of their educational expertise, can become more effective teachers, as well as assume advocate roles for special student curricular needs.

Faculty from colleges and universities will become more aware of the need for alterations of curricula which will be necessary in meeting the preparation requirements of undergraduate students. Rather than attempting to "catch-up" through teacher inservice, the chances improve considerably for appropriate undergraduate preparation.

SUMMARY

Following the screening of teacher needs in physical education services for special populations, and the arrangement of a special study institute, both preservice and inservice experiences were arranged for teachers in rural areas of Idaho. A three phase program was formulated; established on a three year basis to provide a series of workshops for special educators, physical educators, and regular classroom teachers and administrative personnel.

Presenters represented the State Department of Education, professors from Oregon institutions of higher education, and a faculty member from the University of Idaho. Sites were selected at seven areas around the state.

Workshops were presented in such a way as to meet the maximum of teacher needs as indicated by a needs assessment.

The impact and value of the procedures has proven extremely successful in the first year of the three year plan. Indications for continued success are strongly exhibited.

OBSERVATIONS

There is an urgent necessity throughout the United States for teachers and schools to be more responsive to the physical education of handicapped children. Through the experiences established and applied in Idaho, one small attempt has been made to meet these needs, with a strong indication of success.

Continued effort will be necessary to make these services available to teachers nationally. States have similar opportunities for teacher skill upgrading if they will only be utilized. The Idaho approach in this area may prove advantageous for other states.

Teacher needs in understanding of Public Law 94-142, inappropriate certification requirements in special physical education, and minimal parental consciousness of the law, physical education, and the schools suggest a great urgency for continued efforts in these areas.

Overcoming these difficulties requires continued involvement of state department personnel and the use of regional experts. Teachers can act as advocates of, and implementers for, physical education services for handicapped youngsters.

Assistance from the Bureau of Education for the Handicapped has been invaluable in initiating service activities and will be necessary if the process is to prevail.

The legislation exists, teachers demonstrate the professional responsibility, and children are profitting. Educators at all levels must continue their efforts if the services are to extend the richness of life and influence the educational experiences of special students.

Let's Get Together for the Sake of the Children

Barbara E. Miller, G. S. Don Morris, and Glenn Norris

Our BEH Training Project for Physical Education of the Exceptioral Individual is housed at the Montana State University campus in Bozeman and is just beginning its second year of a four year funding period. We have five persons actively involved with the achievement of the Project goals and objectives: Dr. G. S. Don Morris, Project Director; Glenn Norris, M.S. Elementary Physical Education/Behavior Management Specialist; Sabra Wheelwright, Project Secretary; Karen Shirer, the Project's first Master's candidate to graduate this August in Physical Education with an emphasis in Physical Education for the Exceptional Individual; and myself, Barbara E. Miller, M.A., Adapted Instructor Specialist teaching two third's time at Montana State University and one-third time directly teaching and designing an Adapted Physical Education program for the handicapped students in the Bozeman Public Schools.

Montana is geographically large, sparsely populated and considered a rural state. When speaking about the population of handicapped children (a total of 16,152 projected as of September 1, 1978 by the Montana Child Find Program), it is quite possible to find only one special needs individual in a 200 square mile area. There has been and is a pressing need to disseminate information about PL 94-142 to all three areas within Montana. This urgent need has given impetus for the development of a rural delivery system. It is our charge to familiarize workshop participants with the federal and state mandates of PL 94-142 and their role specifically in physical education sin e academically, it is now considered an equal discipline.

During the next 25 minutes, I would like to discuss our rural delivery system from the following three perspectives:

1. I will first discuss the Project implementation procedures operationalized from July, 1977, to the present. Next, I will-
2. Outline the inservice topics of the Fall and Spring workshops. Concluding with-
3. The projected inservice topics and implementation strategies for the next three years.

Now, let's deal with the first topic speaking directly to the implementation procedures performed this past year. Our Project wanted to establish harmonious relationships of state, regional and local personnel. As of late June, 1977, contacts were made to the Montana Office of Public Instruction (OPI), specifically the State Directors of Special Education, in order to establish a working, cooperative dialogue. From this, 11 (eleven) regional Special Education offices and their coordinators were identified, contacted (by both verbal and written communications), and informed of the expertise and knowledges our project personnel could offer to their area. Under the

direction of the regional coordinators, a needs assessment of the Local Education Agencies (LEA) was performed which facilitated in obtaining information of the PL 94-142 needs and the direct services our project personnel could provide to their specific locale.

During August and September, letters were sent to each regional Special Education coordinator outlining our Fall workshop content and scheduling dates. It was left to the discretion of the coordinators to decide whether the workshop content would be valuable for the teachers within the local area. If so, he/she would schedule a workshop date with us, accordingly.

Actual workshops were conducted on a weekly basis during the months of October and November at various sites within the state. To defray expenses, a cost-share approach was used in our travels: once invited, we would provide workshop participants with the necessary knowledges and materials while the regional Special Education Office absorbed transportation and per diem expenses. Last Fall, 2 (two) project members traveled by either commercial airlines or by automobile, which became excessively expensive in terms of dollar cost and time cost. This Spring, while presenting a series of follow-up workshops, we found the mode of employing a local private airlines to fly us to and from each site (all in one day) far more economical financially and in time conservation.

The regional coordinators were given the responsibility of relaying inservice information (date, location, topics) to the local workshop participants, namely physical educators and any other teacher implementing a movement program within a school. These same coordinators also decided which teachers would be permitted to attend our workshops, based on the criteria of the inservice content and each teacher's current level of expertise relative to PL 94-142.

A similar procedure was utilized in scheduling the follow-up workshops this past Spring with the exception of cost-sharing since our project budget allowed adequate funding to pay for any travel expenses incurred.

No in-state travel was done from January to March, which allowed time for on-going project evaluations, Spring workshop preparations, and time for local and on-campus inservice, primarily to the faculty and students within the College of Education during final's week of Autumn and Winter quarters, respectively, pertaining to PL 94-142, with assistance from the Special Education Department at Eastern Montana College in Billings.

Our physical education majors were also given an opportunity to participate in a series of 8 inservice workshops held weekly on Wednesday afternoons for 1½ hours on a voluntary no-credit basis. An average of 30 undergraduates attended this particular workshop series.

Members of our project were asked to speak on the mandates of PL 94-142 to approximately 10 undergraduate/graduate classes and professional organizations across campus, making contacts with an estimated 300 individuals representing a variety of disciplines and specializations.

Our project also invited physical education directors from throughout the state to our campus for a one-day visitation with the intent of acquainting them with project services and goals. A professional exchange of needs and

services occurred among the visiting supervisors and our project staff. This valuable interaction has allowed us to become more responsive to the state's needs. We hope to make this occasion an annual event.

Since this working format was quite effective for us, we will continue to use the same organizational approach in future years, i.e., to present inservice training workshops during Fall and Spring months, while remaining on the Montana State University campus during the Winter.

The second area of discussion is to outline the inservice topics of the Fall and Spring workshops. On what basis did we select the chosen content areas? The selected topics were determined from data received by an informal needs assessment received from each area coordinator. These needs were specific to each locale in Montana. Consistent data supporting the input of the area coordinators was obtained by workshop participants who were formally pre-assigned at the start of the inservice training. This evaluation involved a group of 3-4 workshop participants who cooperatively interacted and answered 5 pre-test questions focusing on their knowledges of PL 94-142. A post-assessment was also conducted at the conclusion of the day to ascertain if any new and useful knowledge had been attained and to comment on our presentation abilities. With the assessment information the following content areas highlighted our Fall workshops:

1. Discussion of the various Individualized Educational Program (IEP) elements.
2. Discussion of the Least Restrictive Environment (LRE).
3. Discussion and demonstration of 3 motor performance assessment instruments.
4. How to utilize knowledges of the above 3 topics to complete IEPs for hypothetical cases, namely a person with Cerebral Palsy (CP) and another being Educable Mentally Retarded (EMR) and
5. Task analysis pertaining directly to physical education.

The Spring workshop topics were extensions of the Fall inservice and sequenced accordingly. Pre and post assessments were once again applied to find what knowledges had been retained from Fall workshops and the current entry behaviors/knowledges or baseline data of the participants.
The following subject matter was disseminated:

1. Appropriateness of norm-reference and criterion-reference testing.
2. Introduction and application of quantitative assessments, i.e., event, duration and time-sampling recording.
3. Techniques for managing and individualizing games for all children, regardless of possible physical limitations.
4. Discussion of alternate program implementation strategies, i.e., stations or learning centers.

Throughout the workshop presentations, we tried to keep participants as actively invovled as possible with tasks, involving the medium of movement to

assist with the learning of various concepts.

The third topic area of the rural delivery system to be discussed is the identification of specific project implementation strategies and identification of topics needed to be presented to teachers during the next 3 years. The following are priority workshop topics that have been identified recognizing the immediate need for their inclusion in future inservice training sessions:

Specific Learning Disabilities
Assessment/Diagnosis
Individualized Instruction
Communication Skills
Techniques of Classroom Management
Writing and Monitoring Individualized Educational Programs

We would also like to build into the inservice training a graduate credit package for workshop participants, i.e., if a teacher attends both Fall and Spring workshops he/she would receive a number of graduate credits (undetermined at this point in time). We intend for this strategy to attract a larger number of inservice participants.

Currently, we are in the process of designating and appointing 5 (five) locations in Montana to become known as PL 94-142 Information Dissemination Centers. The centers will be directly responsible to our project. Five or more persons, preferably those individuals who are directly involved in designing and implementing physical education programs in the schools, will be formally identified, based on specific criteria developed this summer, to represent each of the Dissemination Centers and to act as both a Dissemination Agent and a regional contact person. They will assist the professionals in the outlying rural area of their region with possible practical application concerns of PL 94-142 and other needs, problems, questions, etc. These Dissemination Agents will be brought to the Montana State University campus where they will be intensively trained by project personnel on the content areas of our workshops, teaching methodologies, characteristics and physical education implementation strategies for a range of exceptional individuals, how to effectively use media packages, and materials we have previously developed. The expense of this training would be paid by Project funds. Fortunately, several public school administrators within Montana have supported this idea and have verbally committed release-time for the dissemination agents to travel to Montana State University for the purpose of in-depth training in order to effectively deal with regional problems and concerns of public school teachers.

By providing on-site services through our project members and by developing a network of identified delivery agents across our large rural state, PL 94-142 information should be shared with the necessary individuals. We have begun to devise a video tape series that share with individual teachers a number of concepts. We anticipate preparing film loop and other audio-visual materials that can be distributed around the state - this is contingent upon specific funding sources. Each film loop would address itself to a concept device for our on-site delivery agents. Periodically, each agent will be asked to have a lesson that he/she is teaching to be video taped and sent to the project center for analysis. An assessment statement will be prepared and

through verbal and written communication channels, further program implementation procedures will be made.

It is through the use of video tapes, film loops, other media and on-site agents that our Project can most economically and educationally serve our state. It is a great deal less expensive to mail an item than to send one person to every site. Contact will still be made in outreach programs because project members must travel into the field throughout the academic year. By sending delivery agents to Bozeman once a year (minimum), intensive training can occur at a low cost compared to continuously sending two project members to each site during the year.

The goal of the project is to become an Institute of Physical Education funded by state resources. The institution will focus on the objective of preparing all Adapted Physical Education Specialists in Montana. It will have two major responsibilities: Inservice Training and Preservice Training in Physical Education. Our Project is servicing the HPER Department in most specific terms. Currently we offer a M.S. in Physical Education with an emphasis in Adapted Physical Education and during the 1978-1979 academic year will offer undergraduate courses in this area. We are responsible for preparing all physical educators to work with special needs individuals. In the future, we will seek a M.S. in Adapted Physical Education and state certification standards.

This morning I have attempted to share with you the services our project provides the state of Montana with respect to the dissemination of PL 94-142. This rural delivery system has been a valuable and utilitarian approach to solving or complying with the needs of Montana.

USM Motor Development Inservice Training Project

Walter E. Cooper and
Michael W. Churton

It seems that relative to inservice training we in the behavioral sciences are many times functioning under a faulty ASSUMPTION, namely; that by exposing teachers to knowledges, skills, and understandings, somehow this competency is automatically utilized to bring about change in programs. The USM Motor Development Inservice Training Project sought to investigate this assumption through follow-up observation of program development in the cooperating schools and extensive feedback from the teachers.

The University of Southern Mississippi Motor Development Inservice Training Project grew out of an identified need for the development of teacher competencies in the motor development area. The major intent of the project was to explore various alternatives for the delivery of inservice training. The Discrepancy Evaluation Model (DEM) was utilized to design the components of the project.*

The project was not intended to develop new curriculum materials but to rely on available programs in the areas of (1) motor fitness, (2) perceptual-motor, (3) fundamental movement patterns, and (4) activities to improve functioning in these areas. Programs such as Project Active (Vodola), I CAN (Wessell), and materials developed by Sherrill, Cratty, Ballinger, Godfrey and Kephart, Wickstrom and Gallahue have served as a basis for program design by teachers.

Again the focus of the Project was upon field testing inservice training strategies with the goal of developing a model which would give some assurance of program change resulting in improved functioning of exceptional children. Because of the status of physical education in Mississippi, the target group of teachers became special education teachers--so a retraining process began. During 1975-76 the planning phase was completed through means of a planning grant. During this phase the inservice training strategies were clearly identified and organized through use of the Discrepancy Evaluation Model. Examples of strategies projected follow:

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*The University of Virgina Research and Evaluation Center (funded by BEH) has held training workshops on use of the DEM Model over the past three years. The authors may be contacted for a copy of their DEM networks.

*paying travel and subsistence for teachers
*holding training on regular school days on release time
*contracting with administrators to insure needed support over at least one year
*providing materials in the form of teacher kits
*development of a resource center of additional materials, films, videotapes, etc.
*implementing follow-up services for teachers
*required lesson plans and program implementation
*availability of regular university of CEU credit

At the present time (May, 1978), it is our opinion that a combination of two evaluation models best met the needs for inservice training for the establishment of adaptive physical education programs in the target area of South Mississippi. And please let us emphasize the need for selection of a planning project. This will assure clear identification of project components and continuity of evaluation. The USM project utilized primarily the Discrepancy Evaluation Model (DEM) originated by Malcolm Provus and marketed through a BEH Project by the University of Virginia Research and Evaluation Consortium. A second model utilized was that of the CIPP Model projected by Guba and Stufflebeam. Particularly the CONTEXT and INPUT segments of this model were utilized and to a lesser degree the PROCESS and PRODUCT components. It was vitally important for us to clarify early the needs and resources available in the cooperating schools (CONTEXT). Also the extent of prior training was critical to planning the specific inservice training programs; what specific teacher comptencies were needed to maximize the change of program implementation.

Evaluation

Far too many times evaluation, if completed at all, relies on some general form of questionnaire. In the USM Project efforts were made to evaluate the specific components of the project.

The end-of-the-year workshop each year was devoted to evaluation of the year's training.

The evaluation phase of the inservice training utilized the following techniques:

*response to DEM projected evaluation questions
*teachers self-reports
*small group response to specific statements (group reports were recorded)
*teacher ratings of specific project components
*suggestions for the next year's training
*modifications as a result of the training
*inservice training model - key components for success
*a stipulated definition of "successful" inservice training

Examples of evaluation techniques utilized are enclosed. These three examples illustrate: (1) use of prestated evaluation questions in the DEM, (2) use of a Likert-type scale to measure teacher responses to

the various constructs utilized, and (3) teacher reaction to various descriptors which have previously been identified to reflect positive or negative reactions to inservice training.

In addition, teachers were asked to summarize their reaction to the project overall in two or three pages. It should be pointed out the concern in this presentation is not to necessarily present evaluation of the USM Project, but to motivate the participants to develop evaluation strategies which reflect as objectively as possible the success or lack of success of the strategies employed. Once again, let us not be fooled into thinking that because we implement preservice, or inservice training, that the knowledges, skills, etc., will be utilized in program implementation for exceptional children! This is a dangerous assumption, and we must institute follow-up of trainees and random observation of programs to fully evaluate the outcomes of training programs.

Summary

From analyzing the evaluation data received from teachers (1977 and 1978), several conclusions about the training can be projected.

There is need for a concentrated block of training (five to eight weeks) prior to workshops and followup to instill basic knowledges and skills about motor development. Teachers indicated they would favor such a block of work for credit.

Teachers rated the lecturers and workshops high, and felt knowledgeable in the areas covered; motor fitness, perceptual-motor, fundamental motor patterns.

Though the project staff does not feel five one-day workshops are resulting in what we would hope for, teachers indicate they could not allocate more time during the year. A somewhat moderate to high rate of absenteeism bore this out.

The evaluation statements utilized bore out that specific knowledges in the designated areas were developed among participants.

The resource center as an in-house depository has not worked out well--has not been utilized. Some sort of mobile - van resource center which could circulate among schools would probably work out much better.

Teachers felt they learned more when they were involved in activity; lecture - demonstration - activity - all integrated.

Teachers desired visual aids directly oriented to various handicapping conditions.

More involvement of administrators to promote support of programs is a definite need.

Teachers indicated follow-up services to be essential to inservice training - how much and what type is still questionable.

Teachers responded very favorably to videotaping of their programs and use of this for feedback to teachers and to promote discussions.

Teachers indicated need for more interaction among teachers (small group work) and individual interaction with project staff.

External consultants, on specific topics, were rated high by teachers and more were desired.

Teachers suggested they receive workshop materials ahead for pre-study of concepts, etc.

Teachers would like to have model programs available for initiation and observation.

Descriptors which best described the inservice training provided by the project are: meaningful, interesting, motivating, useful, professional, challenging, relevant.

From the experiences with the USM Motor Development Inservice Project, a definition of inservice training has been stipulated:

> A system of informing decision makers and educating teachers in basic understandings and skills pertaining to planning, implementing, and evaluating a comprehensive adaptive physical education program for the schools of Mississippi. A key component which should be emphasized is evaluation, including planned follow-up services to assure implementation of programs. This definition has been stipulated in view of the specific needs and characteristics existing in Mississippi.

Part III Inservice Considerations for Special Groups

The purpose of this last section of papers is to consider the problems and needs of some very special groups of people--teachers, both general educators and those specially trained; administrators; university faculty; and parents. The philosophy behind PL 94-142, as well as its requirements, is having great impact on these groups. Certainly handicapped students and their non-handicapped peers are a primary concern, but the concerns of parents should also be given greater attention by persons conducting inservice training. It was, to a large extent, through the efforts of parents and their advocates that PL 94-142 was created. We hope that consideration of these papers, which deal with the needs of each group independently, will encourage cooperation between groups through inservice training.

Public Law 94-142: A Psychosocial Approach to Inservice Physical Education

James Santomier and Louis R. Osternig

Inservice physical education has received a major impetus by virtue of the enactment of Public Law 94-142. Concomitant with this has been the need for a re-examination of and a reconceptualization of inservice physical education. The organization, design, and decision-making processes for determining inservice physical education programs are also in need of re-evaluation. The identification of specific roles that physical educators must assume may function as a foundation for inservice education. Thus, adequacy in performing these roles becomes the goal of inservice physical education.

While inservice physical education has given considerable attention to the "practical necessities" of special physical education, there has been a noticeable lack of attention given to psychosocial factors. Traditionally, physical educators have identified social and emotional development or adjustment as objectives of physical education. "In practice, these objectives often receive little more than lip service" (Broekhoff, 1977, p. 9). The social and emotional dimensions of physical education, for the most part, have been either totally neglected or simply taken for granted. Limited references are available "concerning psychosocial implications of mainstreaming or integrating impaired, disabled, or handicapped students into regular physical education classes" (Geddes, 1976, p. 105).

The purpose of this paper is to identify and examine a number of psychosocial factors which may contribute to a conceptual framework from which professional physical educators may draw upon in order to develop and implement inservice physical education models.

Humanistic goals have been of considerable influence in the vindication of mainstreaming and Public Law 94-142 (Geddes, 1976). Sherrill(1976) has stated that:

> It is essentially a question of integration or segregation, acceptance and assimilation of individual differences or societal isolation of those labelled deviant from those labelled normal.... Mainstreaming is to most special educators what humanism is to regular educators. Both seek the optimal development of human potential, the enhancement of individual dignity and the liberation of the human spirit. (p. 19)

For the purposes of this paper, the goals of the integrated physical education program are assumed to be humanistic. They are (1) the development of environments which encourage handicapped individuals to actualize themselves on their own terms - emotionally, intellectually, socially, and physically; and (2) the development of environments that stimulate new dimensions of interpersonal relationships, allow for expanding common

consciousness, and enhance the concern for mutual respect and the protection of the rights of others (Joyce, 1973).

Several mental health development areas have been under consideration for physical education programs provided for impaired, disabled, and handicapped individuals. They include (1) the development of personal satisfaction, a sense of well-being, a positive self-concept, self-confidence, self-actualization, and an improved sense of body awareness; (2) the development of socially acceptable attitudes, values, and personality dispositions, and desirable social relationships with other individuals within their environment; and (3) the development of improved emotional stability and desirable expression of emotional feelings (Geddes, 1976).

The role of the physical educator is conceptualized as a primary agent in the creation of "diverse social ecological milieus affecting classroom behavior" (Silbergeld, Koenig, & Manderscheid, 1975, p. 151). This role will serve as a primary focus for the identification and examination of the psychosocial factors associated with the implementation of humanistic goals; the potential effects of integrated physical education programs upon special physical education students; and the psychosocial factors which may precipitate problems for physical educators in the implementation of these humanistic goals.

THE HANDICAPPED STUDENT

The special physical education student, particularly in an integrated situation, is quite likely to be "affected by many of the same forces relative to play behavior and competitive sports and athletics for the non-handicapped person" (Geddes, 1976, p. 104). These forces may be compounded by several factors. The stigmatized student, when first entering a "least restrictive environment" may be unsure of how the "normal" individuals within the class will identify and receive him (Goffman, 1963). The "mere physical presence in the least restrictive environment is not sufficient to guarantee either academic achievement or social acceptance" (Keogh & Levitt, 1976, p. 9). In addition, the special student may feel that he is "on," "having to be self-conscious and calculating about the impression he is making, to a degree and in areas of conduct which he assumes others are not" (Goffman, 1963, p. 15). Rather insignificant failings or minor impropriety may be interpreted by the handicapped individual to be a "direct expression of his stigmatized differentness" (Goffman, 1963, p. 15). Thus, it can be assumed that handicapped individuals have specific reasons for perceiving the "least restrictive environment" as a contributor to "anxious interaction". The least restrictive environment may actually be perceived by handicapped students as an intensely stressful situation.

The physical education environment may be especially stressful for special students because of the visibility of their performances. "Social comparison theory" (Festinger, 1954) holds that uncertainty about one's ability may lead to competitiveness for the purpose of securing an accurate evaluation of that ability. If the performance coordinated with the ability cannot be evaluated by objective, physical criteria, the individual will utilize the performance of others as a standard of measurement. This has important implications for integrated physical education program, especially

when the extreme range of individual differences in skill ability is considered. Individuals will attempt to raise, or in some instances, lower their performances so that they approximate the performances of others, which reflect relevant standards. When this comparability with others is achieved, individuals are able to subjectively reach accurate self-evaluations.

It is important to note that it is not the absolute level of the individual's performance that is important in affecting the social comparison processes, but the size of the evaluation or performance discrepancy. The factor most significant in affecting the comparison tendency is the importance of the ability about which the individual is uncertain. In summary, the self-evaluation theory holds that competitiveness for obtaining a social comparison is a direct function of self-evaluation uncertainty (Festinger, 1954).

We can assume that the quest for self-measurement develops early in the socialization process. Although failure to satisfy such a need would obviously not have fatal consequences, it is not difficult to imagine potential negative effects. Individuals who do not know their position in any ability or personality scale can be expected to experience some difficulty in establishing levels of aspirations for rewards or understanding their competence for tasks which demand certain levels of ability. Anticipation of potentially negative, or for that matter, unknown consequences relative to this inability is sufficent to produce psychological stress. It is when the self-uncertainty cannot be ameliorated that the stress reaction may become intensified (Pepitone, 1967). Physical educators should understand that, although individualized education programs (IEP) may be developed for handicapped students, they may continue to compare themselves to other "normal" students within the class. Stress will most likely be at the maximum level when there is noncomparability and the individual has an unresolved need for self-evaulation.

Concomitant with an environment that is perceived as stressful, may be the development of what Seligman (1975) has labelled "learned helplessness" (LH). This theory holds that individuals acquire a belief that there is no effective means of dealing with their environment. It has been found that individuals attempt to control their environment in order to reduce stress. If, however, control is not possible or is perceived as not possible, stress may precipitate an increase in anxiety, which may manifest itself in a crisis state (Hooker, 1976). Thus, a learned helplessness victim is exceedingly susceptible to states of crisis, and the possible ensuing reactive depression (Seligman, 1973). Although learned helplessness is a complex concept, based on an expansion of operant conditioning, an understanding of it is of importance for those physical educators who may be faced with the cognitive, motivational, and emotional problem of learned helplessness victims.

The reduction of learned helplessness requires new behavioral patterns to be learned that will successfully affect outcomes. Cognitive processes are prominent in the acquisition and retention of new behavioral patterns and one of the most effective ways of using these cognitive processes to learn new behavior patterns is through performance. Cognitive events are induced and altered most readily by experiences of mastery arising from effective performance (Bandura, 1977).

Bandura (1977) contends that expectations of "self-efficacy" are grounded in four primary sources of information: 1. successful performance; 2. vicarious experience; 3. verbal persuasion; and 4. physiological states. Of these, performance acccomplishments are especially effective due to the fact that they are based on personal mastery experiences. Successful performance will increase mastery expectancies while unsuccessful performance (failure) will usually decrease mastery expectancies, especially if failure occurs in the initial stages of learning. However, failure will not always have a devastating effect. If efficacy expectancies are well established, the effect of failure will be reduced, and, if the failure is overcome by determined effort, may even contribute to enhanced efficacy expectations. Thus, performance is an important factor in reducing learned helplessness. Through physical activity handicapped students may increase their feelings of physical self-efficacy.

"Labelling has become a major and often emotional concern where special education services are considered" (Keogh & Levitt, 1976, p. 1). Mainstreaming was considered to be a method of ensuring educational opportunity and success for the handicapped, a means of providing educational services consistent with federal requirements, and a means of eliminating the possible effects of pejorative labels (Keogh & Levitt, 1976). However, as Keogh and Levitt (1976) state:

> The impact of labelling as an explanation for educational failure or behavioral deviance is seemingly overestimated. Removal of a pejorative label does not necessarily lead to changes in pupils' behaviors or competencies. Teachers respond in part at least to how pupils behave and how they achieve, not just to what they are called. As there is considerable evidence to suggest that labels provide little insight into remediation of children's problems, labels are undoubtedly best forgotten wherever possible. It is naive, however, to suggest that pupils' problems are in fact "caused" by labels, and thus can be "cured" simply by removal of those labels. To suggest that we can ensure successful mainstreaming of exceptional pupils by removing labels is to overlook real and important individual differences which must be taken into account in educational planning. (p. 9).

Although Keogh and Levitt have suggested that labels are not as important as they once were assumed to be, an understanding of the symbolic labelling process may be quite important in the integrated physical education environment. Stevenson (1975), in a discourse concerning symbolic socialization, identified labelling "as a concept in which socialization occurs as a consequence of an externally applied social label" (p. 109). Labelling was one of three concepts that were used as examples of a more general concept of symbolic socialization, which was the result of a symbolic act which identified an individual as occupying a particular social role.

> The suggestion is being made here that socialization effects occur as a consequence of such symbolic acts. Behavioral changes, attitudinal changes, and even personality changes occur as a result of symbolic acts. A person who is symbolically identified as a particular role, becomes that role; he takes on

the characteristics of that role and fulfills the interaction expectations that surround it. (Stevenson, 1975, p. 109).

Social interaction is assumed to be "a mechanism for reinforcement that operates only after a symbolic act of identification and within the limits set by that act" (Stevenson, 1975, p. 109). The power of the symbolic act is dependent upon three sets of variables: 1) the degree of legitimacy of the symbolic act, the conferrer of the symbolic act, and the social role conferred by the symbolic act; 2) the degree of perceived value of the social role in the culture, and the degree of perceived value to the socializee; and 3) the degree of cultural understanding.

Physical educators may symbolically label both handicapped and non-handicapped students through the activity selection processes that are used and the various role assignments that are identified for students. Socialization differences that may occur between two students, for example, between a handicapped and non-handicapped student, may occur primarily as a result of the symbolic act of role identification. In addition, the mere classification of students into two separate groups using different labels, names, physical proximity, etc., leads to a significant in-group/out-group differentiation (Robbie & Wilkens, 1974). Thus, consciously or unconsciously, physical educators shape the behavior of students. "It makes eminent sense, then, that physical educators should gain an awareness of the socialization processes and that they should not leave the social and emotional development of [handicapped] children to chance" (Broekhoff, 1977, p. 10). This is especially true if physical educators are striving for humanistic goals in integrated physical education programs.

THE PHYSICAL EDUCATORS

The school may be conceptualized as a social system consisting of two dimensions which are separate but interdependent. These two, the personal dimension and the organizational dimension, are important factors in producing organizational behavior (Getzels, 1958). The school organization has specific role structures and expectations designed to accomplish the goals of the school and the role incumbents are expected to exhibit behaviors which contribute to the goals of the school. However, the incumbents are individuals with their own personality structures and needs, interests, and abilities (Getzels & Guba, 1957). Thus, behavior in social system (the school) is a function of the interaction between a given institutional role, defined by the expectations of that role, and the personality of a particular role incumbent.

> The physical education teacher's role and his professional identity may be crucial to the possible therapeutic and social values of the subject in school. Yet these problematic functions of physical education may also contribute to suggestions that the physical education teacher suffers from status deprivation, marginality, and role ambiguities in school. (Hendry, 1975, p. 467)

Marginality has been used "to define roles in an organizational setting which are peripheral to the main functionings of the institution" (Stonequist, 1961). In fact, Hendry (1975) found that members of the physical educator's role-set possessed distinctly different concepts of exactly what the physical educator's role was. In order to survive in the "marginal role," the physical educator may commit himself to sport and to the expressive culture of the school. A commitment to sport, although sustaining the physical educator's professional career, may manifest a teacher/coach conflict. This may have implications for integrated physical education programs.

> Not only might the role of coach be subject to the intra-role conflicts common to other teachers, but because the occupant usually bears another distinct set of instructional responsibilities within the school, the teacher/coach might be subject to a unique set of inter-role conflicts. (Massengale & Locke, 1976, p. 2).

Massengale and Locke (1976) found that "physical education teacher/coaches differed from teacher/coaches assigned to academic classes primarily in terms of significantly higher Teacher/Coach Conflict scores" (p. 13). "A surprising number of teacher/coaches admit concern over the feeling that the quality of their teaching performance is impaired by the additional demands of coaching" (Massengale & Locke, 1976, p. 15). Thus, physical educators responsible for both preservice and inservice education should "better prepare young professionals to confront and resolve these conflicts" (Massengale & Locke, 1976, p. 15). Especially in light of Public Law 94-142, administrators should consider the potential consequences of the teacher/coach conflict and should consider new approaches to staffing.

A potential result of the teacher/coach conflict may be found in the syndrome of "teacher stress" (Kyriacou & Sutcliffe, 1977). Teacher stress was defined by Kyriacou and Sutcliffe (1977) as "a response by a teacher of negative affect (such as anger, anxiety, or depression) accompanied by potentially pathogenic physiological changes (such as increased heart rate, or release of adrenocorticotropic hormone into the bloodstream) as a result of the demands made upon the teacher in his role as a teacher" (p. 299). Teachers are continually facing new demands and making adaptations. The extent to which these demands result in stress depends upon numerous factors.

> Examples of such factors which may be important are (1) the degree of role conflict or role ambiguity involved, (2) the degree to which the teacher perceives that he is unable to meet the demands made upon him, (3) the degree to which the teacher's ability to meet the demands is impaired by poor working conditions, (4) the degree to which the demands are new or unfamiliar, and (5) the degree to which the teacher is already experiencing stress resulting from sources outside his role as teacher. (Kyriacou & Sutcliffe, 1977, p. 299).

Although careful empirical research must be conducted in order to investigate specific factors implicated in teacher stress and their inter-relationship with integrated physical education programs, it is imperative that inservice educators consider the "least restrictive environment" as

potentially stressful, for physical educators as well as for handicapped students.

If handicapped students are to be successfully integrated into regular physical education programs, the attitudes of physical educators toward these individuals should be a major concern of inservice education programs. Some physical educators may consider the integration of handicapped students into their classes to be a burden. "Teachers may feel that their enterprise is being disrupted by a seeming misfit, and their feelings are not likely to be changed by pressure, parental demands, administrative demands, or exhortation" (Shotel, Iano, & McGettigan, 1974, p. 91). These negative attitudes toward the handicapped may be manifested in role-distance, which refers to "actions which effectively carry some disdainful detachment of the performer from a role he is performing" (Goffman, 1961, p. 110). Role-distance refers to the alienation from a role; a disidentification with it.

The concept of role-distance is applicable to teachers, and teachers of "slow learners" may be especially susceptible to role-distance (Khleif, 1971). Role-distance will generally increase as the ability of the class decreases. That is, the teacher's role-distance is inversely proportional to the ability of the students. In physical education, the ideal is to teach "gifted" individuals, not "handicapped" individuals. Undergraduate professional preparation programs have trained physical educators to deal with a "mythical above average-learner and achiever, hardly with the average learner, and with very few exceptions--not with the slow learner at all" (Khleif, 1971, p. 5).

In teaching handicapped students, the physical educator may manifest a wide range of behavior, from general antagonism to the class as a whole to specific behavior directed toward individual studetns. Although much of the research on teacher role-distance was concerned with academically slow learners, some of the observations and conclusions may be applicable to teacher role-distance in integrated physical education programs.

Teachers were observed to demonstrate their role-distance through: 1) changes in the tone of voice from sing-song to cutting and derisive; from scolding to unexpectedly cheerful and friendly; 2) winks, blinks, grunts, furtive glances, and distressed or resigned gestures (these may also be closely related to symbolic socialization); and 3) the use of sarcasm (Khleif, 1971). Logically, the existence of role-distance suggests the existence of role-closeness. An individual experiencing role-closeness will "disappear completely into the virtual self available in the situation, to be fully seen in terms of image, and to confirm expressively one's acceptance of it. To embrace a role is to be embraced by it" (Goffman, 1961, p. 106). Manifestations of role-closeness that may be observed in the role of teacher include: 1) expressed attachment to the role, e.g., when teachers convey to students and observers by gestures and words how they enjoy the class; 2) demonstration of qualifications and capacities for performing an occupational role, e.g., when teachers give students respect and acceptance, show constant interest in their progress, and discipline students without shaming them; and 3) an active engagement or spontaneous involvement in the role activity, e.g., the ability to vary the class atmosphere. Thus, it must be realized that one's profession (teaching physical education) may be a major basis for identity and that self-validation through colleagues and students assumes a daily urgency (Khleif, 1971).

In addition to the psychosocial factors considered within this paper, there are numerous other psychosocial areas of concern for inservice physical education. The social psychological dimensions of motor learning are of special significance. Important concepts that should be considered for inclusion within inservice physical education models include: 1) the effects of social facilitation and coaction on the motor learning and performance capacities of the handicapped; and 2) the influence of evaluation apprehension on motor learning and performance.

In conclusion, the purpose of this paper was to identify and examine a number of psychosocial factors that may contribute to a conceptual framework for the development and implementation of inservice physical education models.

I should like to add, however, that the attainment of humanistic goals in integrated physical education programs may only be realized when physical educators perceive themselves as role models for their pupils and, with expert knowledge of motor skills and groups processes, deliberately conduct the interaction in such a way as to foster satisfaction, cooperation, efficiency, cohesion, trust, and mutual identification (Wolff, 1975).

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PE Inservice for Physically Handicapped

Michael B. Jacobs

The thrust of the University of Texas' inservice program centers on the implementation of PL 94-142 in the physical education setting. We are concerned with the motor development of all handicapped children - ambulatory and non-ambulatory. Unfortunately, most physical educators have little experience dealing with the wheelchair-bound. And the majority of inservice workshops deal almost exclusively with the ambulatory. It is for this reason that one aspect of our training deals with simple therapeutic procedures which can be done in the physical education setting. Historically, school systems have delineated rehabilitative responsibilities to physical and occupational therapists, but physical educators should be able to supplement and complement the existing school therapies. This is not to imply that this therapeutic approach should supplant the physical educator's role as the supplier of habilitative and recreational activities for the handicapped, but the activity prescription should now include a remedial component. Congenital brain damaged children (e.g., cerebral palsy) in wheelchairs require more from their physical education experience than recreational sports, games, and activities. The physical educator should also, working with the physician and school therapists, aid with the rehabilitative process. This is the only way to insure that the child will achieve his fullest motor development potential. What is presented in our workshops dealing with the nonambulatory are adapted sports, games, and activities plus procedures to optimize the child's chances of reaching his fullest motor potential. The following is representative of the information presented in our training.

WORKSHOP PRESENTATION

What can be done to aid the cerebral palsied non-ambulatory students in your elementary school physical education class who are functioning at a normal academic level, but have obvious motor development problems? Adapting sports, games, and activities and teaching habilitative skills are obvious responsibilities. But to fully comply with the intent of the law, the physical educator's role is also to eliminate any primitive reflexes and relieve contractures.

PRIMITIVE REFLEXES

Most children with upper motor neuron brain dysfunctions manifest primitive reflexes and synergy patterns which preclude acquisition of normal motor functioning. In the non-impaired, these primitive reflexes, e.g., the

asymmetrical tonic neck reflex (ATNR), are inhibited by higher cortical functioning. The cortical functions inhibit these lower sterotypical behaviors to allow a variety of voluntary movements. Synergy patterns are also indicative of motor development lags. In these primitive patterns, movement of one joint results in involuntary activation of other joints. A common occurrence is the inability to flex the hip without also simultaneously dorsiflexing the ankle. Thus, the physical educator's initial step is to ascertain which primitive reflexes and synergies the child manifests. What follows is a list of more common primitive reflexes and the way they can be elicited.

There are a few important items to remember, however, First, few reflexes manifest themselves as clearly as textbooks seem to indicate. What you should be concerned with is any exaggerated change of tone in the limbs resultant from a change of head and body position. Second, these reflexes were at one time part of everyone's behavior, but higher brain functioning has masked them in the normal child. And third, there is a chance that proper intervention can help the child overcome these stereotypical responses. He will never have efficient motor abilities until these reflexes have been controlled.

Reflexes to evaluate include:

	Reflex	Stimulus	Primitive Response
1.	Asymmetrical Tonic Neck	Rotate Head to one side	Extensor tone greater in arm and leg of face side; flexor tone greater on skull side
2.	Symmetrical Tonic Neck	Flexion and extension of head	During flexion of head, arms have increased flexor tone and legs have increased extensor tone. During extension arms have increased extensor tone and legs increased flexor tone.
3.	Tonic Labyrinthine Prone and Supine	Supine and Prone position	In the supine position, increase in extensor tone. In the prone position, increase in flexor tone.
4.	Positive Supporting Reaction	In standing position bounce several times on soles of feet.	Increase in extensor tone, no voluntary flexion of knees.

5.	Labyrinthine Acting on Head	Blinfolded in prone, supine, tilted to right, and tilted to left	Head does not rise to normal position.
6.	Optical Righting	With vision in prone, tilted to right, and tilted to left.	Head does not rise to normal position.

(See Reflex Methods for Evaluating Central Nervous System Development, by Fiorentino for an overview).

Eliciting any of these primitive reactions in the elementary aged child indicates developmental lags which would preclude normal motor development and acquisition of equilibrium reactions.

There is much debate regarding the optimal way to overcome these primitive reflexes, and many exercise therapy principles have been advanced. But one item seems paramount: Unless the cortex receives feedback from the muscles you are attempting to train to use voluntarily, there appears little chance that you could obtain the necessary cortical functioning necessary to inhibiit these primitive responses. There is evidence that information from muscles, skin, and joint receptors reaches the sensory cortex in both cats and primates (Brooks and Stoney, 1971). If residual motor pathways are available, input must reach the cortex before voluntary use of these pathways could ever be achieved. One technique utilized is to plan activities that force the child to use non-stereotypical behaviors when a stimulus is forcing him into sterotypical tone changes. For example, as previously mentioned, a child with a tonic labyrinthine reflex when lying prone will manifest greater tone in his flexor muscles. A scooter board activity with a person or apparatus holding the child's legs and arms in extension can be utilized to send the optimal feedback to the cortex. On turning his head, tone changes occur in the child with the ATNR. Devising a game which forces the use of the skull side, arms in extension, and the face side in flexion can be utilized. The key: do not allow the involuntary responses to be used; force the limbs into the opposite position.

Overcoming synergies can follow the same principle. Hold down the hip and other joint movements when eliciting ankle dorsi-flexion. Keeping the limb in the proper anatomical plane, e.g., sagittal plane for hip flexion, is important for optimal feedback. Too often activities are given which allow the child to continue implementing synergy patterns. This is contraindicated as an aid to motor development. Imagine while you're walking that everytime you flexed your hip, your ankle dorsi-flexed. You can see why it would be difficult for any child with synergies to ambulate effectively.

RELIEVING CONTRACTURES

Another important role that can be played by the special physical

educator with the wheelchair-bound child is to relieve contractures. The contractures usually occur in postural muscles which have increased gamma system activity due to lack of cortical inhibition. The following could be accomplished with a regular program of flexibility exercises: 1) the child is much more comfortable, 2) debilitating postural adaptation problems are prevented, 3) proper stretching techniques could produce the feedback necessary to facilitate eventually more voluntary control, and 4) proper stretching techniques could help strengthen muscles which have been adaptively stretched and weakened. The optimal stretching procedure is one which the child voluntarily contracts the opposite muscle group and slowly pulls the limb to a straighter position (Jacobs, 1976). Only a contraction will activate the Ia primaries of the muscle spindle which inhibit antagonistic muscle activity (muscle attempting to stretch). This concept is reciprocal inhibition and should be attempted rather than passive stretching whenever possible. The theory of passive stretching: The tension buildup in the muscle would activate the Golgi tendon organs (GTO), which would then inhibit the alpha motorneurons' impulses to the muscle's extrafusal fiber. There are five reasons why passive stretching may be contraindicated for use in relieving contractures:

1) Extreme stretch could cause the GTO's to fire, but they are mostly sensitive to the muscle's contractile force as a muscle contraction (Matthews, 1972);

2) Passive stretching can be painful;

3) There would be no hope for retention of flexibility, for the tendon organs have a short-lived inhibitory message;

4) If passively stretched too rapidly, the muscle spindle complex (velocity-sensitive), lying parallel to the extrafusal fibers, would be activated. The resultant stretch reflex would cause contraction of the muscle one is attempting to stretch, and

5. There is no provision in this technique for the ultimate goal - feedback to the cortex necessary for acquisition of voluntary muscle control.

Obviously, the self-generated movement (against gravity or gravity neutralized) may not be sufficient to move the limb very far because of the contracture on the opposite side. However, the relative relaxation will allow some movement and while the child is being told to continue to contract the physical educator can passively complete the range of motion. A muscle contraction is crucial though for 1) initiation of the stretch to utilize reciprocal inhibition and 2) optimize feedback from the periphery (Lemon et al., 1976).

ACTIVATION OF NON-RESPONSIVE MUSCLE

There will be circumstances when the child is unable to voluntarily activate the agonist necessary to stretch the contractured antagonist. Before resorting to complete passive stretching, an attempt to activate the non-responsive muscle should be made. This procedure (to be subsequently presented) leads to 1) agonist contraction with the resultant antagonist

firing minimized (perhaps only for a short time), 2) minimization of pain, and 3) utilization of muscle contraction feedback by the system for subsequent voluntary control.

As specific a facilitation as possible should be utilized so the system is not confused by extraneous sensory input. One procedure to activate a muscle unable to be volitionally initiated is to tap the tendon to produce a stretch reflex. Most of these children have accentuated stretch reflexes; thus this technique can be useful. For example, tapping of the patella ligament will activate the quadriceps, allow some knee extension and relatively relax the contractured hamstrings. The contraction and relaxation may be ephemeral, but while relaxed, gentle passive movement of the limb can be achieved to further the range of motion. Vibration between 150-200 cycles per second, stroking, rubbing, or heat applied to the agonist also can elicit a contraction. With these techniques we are obtaining muscle spindle response which causes reciprocally relative relaxation of the antagonist--the muscle to be stretched.

CONCLUSION

It should now be more clear that the physical educator has a major responsibility in dealing with the nonambulatory. The physical educator of the handicapped obviously requires different training - a more therapeutic orientation. The pervasive belief in this approach is that activation of specific muscles and optimal sensory feedback can be functional practice toward the establishment of a coordinated engram. This can be accomplished to a degree simultaneously while also working on relieving contractures.

For example, the engram for hip flexion in the nonaffected contains adequate temporal, quantitative, and spatial information. The nervous system can select the proper timing of muscles involved in the movement, the number of motor units necessary for the task, and the muscles that must act as synergists and stabilizers. Only through correct feedback can we ever hope to aid the nonambulatory child's motor development to the point where he can integrate the necessary elements to produce the proper output.

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Looking at Mainstreaming in Elementary Physical Education through the Eyes of the Classroom Teacher

Kelly D. Rankin

Since the passage of PL 94-142 in 1975, schools throughout the country are now beginning to implement this law. Such efforts are being met with many cries of frustration from teachers. Much of the problem stems from the unknown aspect of how to handle children with some type of handicap in regular classrooms.

In general, most teachers will welcome, if they haven't already, the challenge of mainstreaming in their particular school. As Edward Nyquist (6) stated, "Instead of valuing only children who excel in the classroom or on the playground, the humanistic educator nourishes the capacity of all children to grow, to develop, and to be joyful and full of life." (pg. 1)

The Education for All Handicapped Children Act (PL 94-142) provides for an administrative and financial commitment on the part of the Federal Government to assure that all handicapped children have a "free appropriate public education" which emphasizes special education designed to meet their unique needs. Of particular importance is the fact that physical education is specifically identified in the law as a necessary guaranteed course of study within the total curriculum for these students (7).

A major impetus behind the enactment of this law was the finding by the United States Congress that more than half of all handicapped children in the United States do not receive appropriate educational services which would enable them to have full equality of opportunity, and that one million handicapped children in the United States are excluded entirely from the public school system and will not go through the educational process with their peers. (1)

The concept of integration referred to as "mainstreaming" in many educational circles, is represented in the rules and regulations for the law by the term "least restrictive environment." In order to qualify for Federal funds, each state is required to establish procedures to assure that, to the maximum extent appropriate, handicapped children, including children in public and private institutions or other care facilities, are educated with children who are not handicapped.

As mentioned, physical education services, specially designed if necessary, must be made available to every handicapped child receiving a free appropriate public education. "Physical education" is defined in PL 94-142 as follows:

1. The term means the development of:

   a) physical and motor fitness;

   b) fundamental motor skills and patterns and;

c) skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports).

2. The term includes special physical education, adaptive physical education, movement education and motor development.

Who then will teach physical education to these handicapped children? Very possibly it will be the elementary physical education specialist, the physical educator trained in working with adapted physical education; or it will be the classroom teacher. This is where most of the cries of frustration are stemming from -- classroom teachers with limited training in physical education, required to teach physical education to special groups.

THE ROLE OF THE TEACHER

The time and attention devoted to adequate preparation for mainstreaming is absolutely essential to the success of the program, whether it be in the classroom or in the gymnasium. Mainstreaming involves significant role and attitudinal changes for school personnel, and new demands and expectations for students and parents.

It is the role of teachers that we are concerned about in the promotion of a good environment for the wholesome personality development of the handicapped student. Any educational endeavor to help the handicapped make a more meaningful adjustment, must include the promotion of better understanding among the children with whom the handicapped child comes in daily contact in the classroom and on the playground (2).

In addition to the problem the classroom teacher faces in changing attitudes toward working with handicapped children, is the problem of reorienting or changing attitudes toward physical education. As stated earlier, if there is no physical education specialist in elementary physical education, then classroom teachers will be expected to teach their own physical education.

In regard to the qualifications for an elementary classroom teacher to teach physical education and adapted activities, it should be said that the background subject areas are essentially the same as those for physical education. A thorough knowledge of physical activities is very important, as is a sound understanding of the nature of the human body and its response to exercise. Training in methods of teaching and the psychology of learning, including motor learning, are very necessary.

In addition to knowledge pertaining to physical education in general, the teacher should acquire some specific information about the causes, nature, and psychological implications of the various handicapping disabilities. It is necessary to understand the effects of exercise upon these conditions and how physical activities may be utilized to improve the social and emotional, as well as physical, well being of handicapped individuals. The teacher must also have a basic knowledge of emergency treatment in minor injuries, and most particularly, the practices that are applicable to cettain handicaps. How is emergency care to be administered to an epileptic in a seizure or a

diabetic in insulin shock?

Another area of which the teacher must be aware of is that of non-verbal communication. What is verbally said is not always what is non-verbally communicated. Galloway (3) found that throughout the course of a teaching day, a teacher may believe that he is communicating, "I enjoy this subject," "Aren't these ideas interesting?", "I like you," when all the time the pupils in the classroom or gymnasium may be interpreting his statements differently. That is, discrepancy exists between what the teacher says and what the teacher expresses. In fact, pupils will gauge the intent or meaning of a teacher's communication by attending to the expressive aspects of his behavior as a check on the verbal. If a difference exists between the two expressions, the pupil will most often accept the non-verbal as representing the authentic message.

A teacher may verbally utter approval for some activity a pupil is doing, yet the pupil may pick up cues which suggest disapproval. Although a teacher may verbally insist with most persuasive language that he holds a certain belief, a pupil will continually check the teacher's non-verbal expression to see if a contradiction can be detected (4).

SOME AVENUES FOR THE CLASSROOM TEACHER

It is easy to identify a myriad of problems facing classroom teachers who will teach physical education, but care must be taken to offer some possible solutions and avenues which can perhaps assist the teacher to meet these needs. One of the first solutions is current updated courses offered for summer course work from the colleges and universities throughout the country. It is indeed a challenge to set up curriculums to cover the practical and applicable aspect of teaching physical education to the handicapped child. This should center on what classroom teachers need and feel they can use rather than "theories" that leave them just as frustrated as they were before the summer course.

Inservice workshops can serve the classroom teacher in a very practical way. Rather than bombard the teachers in a one-time total exposure, they should be organized in a diagnostic-prescriptive theme. Diagnostically, before hand, establish just what the teachers want to know. Identify certain fears or weaknesses and then the workshop itself becomes prescriptive. It might be established that the teachers are very concerned about characteristics of atypical children or methods and organizational techniques. Maybe it's class management, discipline or procedures to fill out Individual Educational Programs (IEP). A workshop can "zero in" on many of these areas once they are identified. Another area to cover is an awareness of how to use auxiliary helpers to assist the teacher, e.g., being aware of the help that can come from a physical therapist, a recreation resource person, or a teacher's aid. Workshops in which the teachers actually work with the handicapped children have proved to be very beneficial. This does more to erase the "unknown aspect" than any text book could expect to do.

Two other areas of relevant value for a workshop are learning how to develop Individualized Educational Programs (IEP's) and working with parents of handicapped children. If a physical education specialist is not involved

in the planning committee, the classroom teacher must see that the necessary physical education program is developed. Subjects such as communication, and parental involvement are important topics to be discussed with teachers during an inservice session.

Many teachers worry that "the addition of handicapped children will add to their burden and take time away from the normal children" (5, p. 63).

Class size certainly will be a meaningful concern to teachers. The Denver Plan dealt with this area of mainstreaming. The theory was that for every handicapped child a teacher was assigned, two regular students would be transferred to another classroom, therefore reducing the numbers. Careful consideration, though, must be to not overburden the "good teachers" and end up back in a segregated special education classroom.

Another idea, used to adjust the size problem, is that of individualization and peer and cross-age tutors. An example of cross-age tutors is using a sixth grade pupil to assist a third grade EMR child using very closely structured guidelines. The peer tutor is a child of the same age used to help the teacher. This idea could be very easily implemented by the classroom teacher for activities in the gymnasium.

THE PHYSICAL EDUCATION CURRICULUM

Careful consideration must be given to developing a good curriculum in physical education to meet the needs of both regular and handicapped boys and girls. The key is how the teacher can take the many activities and adapt them to meet the needs of each child.

Important areas to be included in meeting the needs of children through physical education are:

1. Basic locomotor and non-locomotor movements
2. Movement exploration
3. Basic developmental skills
4. Perceptual motor development
5. Games and skills
6. Postural development
7. Stunts and tumbling
8. Apparatus work (small, large)
9. Combatives
10. Basic rhythms and dance (creative, folk dance and square dance)

Much can be said for creativity of the elementary classroom teacher. Most will welcome the challenge of working with the area of mainstreaming, but there is still the need for current information to be offered to the teachers through summer courses and workshops. Inservice training can and will make this period of transition easier for administrators, classroom teachers, parents, and children.

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Administrative Inservice Considerations for Adapted Physical Education

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Communication is the primary prerequisite for establishing and maintaining a quality physical education program for students who are handicapped. Administrative communication is vital to develop positive awareness of the program, to develop and maintain support of the program, to develop pre-service and in-service training, and to increase the student-centered benefits of the program. The following article will direct itself to this variety of factors dealing with Communication in an inservice program.

COMMUNICATION FOR AWARENESS:

Traditionally, there have been many educators who are unaware of the benefits of physical education for students who are handicapped (exceptional). It has been stated that if a student can't keep up with the average students in physical education, then he/she should be excused from physical education. If this logic were to be applied to other curricular areas in education, students who can't keep up with the average students in reading or math should be excused from ever having to read or do math. In contrast, physical educators are becoming more aware of the positive benefits for students through specially designed physical education. The benefits, the goals and objectives, are basically the same as those for general physical education, Many physical educators are aware that by including students who are handicapped in physical education the school is offering a meaningful program for students who will benefit the most. This awareness also needs to be communicated to the average/general students on campus. Their positive application of peer teaching and peer socialization in physical education can often times accomplish student-centered goals and objectives much more quickly then the teacher working in isolation. Awareness also needs to be communicated to the exceptional students and their parents. Many exceptional students have had a negative experience in a particular physical education class or program, and then judge all physical education by that one experience. Someone administratively needs to be responsible for this communication with students, parents, physical educators, and support personnel including counselors, the school nurse, general faculty and administration. This awareness is vital prior to program implementation. Awareness can be compared to establishing a base, a foundation on which the program will be built. Awareness is an "Administrative Intangible," yet it can be demonstrated by successful and nonsuccessful adapted physical education that it is vital: Following this intangible called awareness, one must consider some "Administrative Tangibles".

COMMUNICATION FOR SUPPORT:

The most practical concern of support comes in the form of financing such a program. A specially designed physical education program can be funded through special education, federal projects, or local educational budgeting. The ongoing financial "pinch" in education requires that this concern be explored fully. If a general physical education class has a 35 to 1 student-to-teacher ratio and a specially designed class has a 15 to 1 student-to-teacher ratio, it is obvious that the cost per pupil is more than double for the adapted class. It might also be assumed that when a budget needs "trimming", adapted physical education will be the first to get cut. There are existing specially designed physical education opportunity programs for exceptional learners that utilize the concept and practice of PEER Teaching which offers a positive solution to this budgetary concern. By including 15 exceptional learners together with 15 student aids the student-to-teacher ratio per class would be 30 to 1. This is much more cost effective, and also has direct positive implications on student and program objectives. With financial support, there is a necessity to determine whether physical, special or general educators are responsible for the actual teaching duties. By example, if the program is funded through special education, must the teacher be a special educator? Different states and school districts have a variety of requirements for certification and qualifications which need to be examined... ..and in some cases, challenged. Any specially designed physical education program should emphasize that it is offering students physical education opportunities, and these students are exceptional in a variety of ways. The program should not emphasize the handicaps first, and the student second. The general point to be made is that there is a variety of financial support alternatives which have spin-off considerations and challenges for the program administrator.

Support of the program is also very personal. As mentioned in connection with awareness, there are many people on campus that can make or break the program. Those counselors, school nurses, doctors, parents, physical and special educators, administrators and support personnel who believe in the program need to be "nourished and cultivated". An administrator or teacher who feels that they don't need the support of anyone is in big trouble personally, and may jeopardize the program. Counselors and school nurses need to know about the program, and arrangements should be made for them to visit and see the program in action. Their role and responsibilities need to be explained for they hold the key to student referrals and scheduling. The support of medical doctors is also important. It is much easier for the family physician to arbitrarily write "No P.E." than it is for him/her to investigate the special program offerings in physical education at a given school. The responsibility for establishing this medical support lies with the program administrator. Generally, this support must be cultivated on an ongoing basis for all concerned. If the program begins to "stumble" it can usually be traced to a lack of communicaton for ongoing support.

Program support is also directly related to the use of facilities and equipment within the physical education department. For the specially designed physical education program to be meaningful and worthwhile, it can not be a "closet" program. It must have access to physical education equipment

and facilities on an equal opportunity basis. Communication and planning with the department chairperson is therefore a necessity if this type of support is to be achieved. By example, additional communication for support would be required if the program were funded through special education, taught by a special educator, yet with an expectation of free and equal use of physical education equipment and facilities.

School and district level administrators need to be aware of the responsibilities of the program administrator as well as support this individual and his/her teaching staff. There is little doubt that an effective physical education program for students who are handicapped requires additional planning, individualized instruction, communication skills, and a variety of student-centered mini-administrative duties on the part of the program administrator and teaching staff. If this awareness and active support is present and communicated to all involved, then the program will truly benefit exceptional students and the entire school.

Administrative Communication may be described as an "Art". A program that is truly effective for the benefit of students, usually has positive and ongoing communication among those directly involved in the program. Communication is also that daily ingredient most easily shuffled to the bottom of our priority list of "Things to Do". ...Even though we realize that the "art" is never completed by contemplation.

Infuse: An Inservice Model for University Faculties

John Hall

Attitudes toward the handicapped have changed dramatically in recent years. These changes have been supported by parents and educators and mandated by legislation. Such a movement of handicapped students from segregated educational settings to "regular" classes gives hope for a more humanistic education for the handicapped and non-handicapped alike.[1]

How then do "regular" teachers, not the specialist in working with the handicapped, become better prepared to deal with these situations? The most obvious is to develop a well designed inservice program for teachers educating them to the problems they will encounter and what they can do to ameliorate these problems. This is certainly a most commendable approach to helping those professionals already in the field.

The next question is, what do we do about the preparation of the continuous flow of professionals from our colleges and universities? As should be obvious, our physical education programs for the generalist are not currently training them to deal with special children in their regular class. This could become even more evident as the concepts of mainstreaming and "least restrictive educational environment" make their imprint upon an educational system. With more than eight million handicapped children in the United States today, we must assume the physical educator in the public schools will be responsible for the education of more and more of these children.

Let us briefly review the alternatives available to colleges and universities for the training of prospective teachers to deal with special populations. First, there are available specialized programs located across the country to train specialists in physical education for the handicapped. Such programs, many familiar to us, span the country from the west coast at Washington State University, University of California at Los Angeles, and here at our host institution, Oregon State University, to programs in the Northeast at such institutions as the University of New York, Brockport, the University of Connecticut, and Temple University. Certainly we should not forget the many programs spanning the more southern states from the University of Georgia and the University of Southern Mississippi to Texas Woman's University. Again, the immediate problem presented by these programs is the focus on the development of specialists. A second problem associated with many programs evolves from the fact they are initiated with federal funds, United States Office of Education - Bureau of Education for the Handicapped, which are not available to every college and university.

A second alternative to dealing with our proposed problem would be the initiation of additional coursework for all majors. Problems do arise with such a solution. Most programs indicate a feeling that too many courses already are required, this being substantiated by student unrest that the number of

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hours and schedule of required physical education courses makes it almost impossible to graduate in four years. A final point to ponder regarding this alternative, evolves around the overall effectiveness of one or two additional courses in meeting the objective of making the physical education generalist better prepared to deal with handicapped children.

Given that the last alternative is less than acceptable for any combination of reasons proposed, may I suggest to you a third alternative. Let us suppose that instead of introducing new courses we take those core courses required of all majors and provide information relevant to handicapped populations within the topic area of each particular course. With this approach we introduce information about special populations within the confines of those courses already required of all majors. Certainly, let me point out that this preparation is not intended to be to the exclusion of an already existing adapted physical education course, but instead an addition to it.

Now that I have proposed an alternative to you, let me also suggest a major and rather obvious problem with it. What are we going to do with the exercise physiologist, historian, motor learning expert, anatomist or even those individuals teaching activity courses for the major who have no background in dealing with special populations? As unspeakable as it might seem, let us introduce the possibility of inservice instruction for university faculties.

If, in fact, inservice for this population is an alternative, maybe we can examine some of the potential problems we might encounter. The first problem is motivation. "How do you get an old dog to learn new tricks?" This problem certainly presents a complete spectrum of possibilities from the faculty which is intrinsically motivated as a unit, to the completely apathetic faculty. As is very often the case, if the intrinsic motivation is not present to expand and improve course instruction, perhaps the extrinsic motivator will suffice. This could be the kindling to the development of a genuine interest in the development of their particular instructional area, as it deals with special populations.

What are some of these "extrinsic" motivators? Probably one of the most effective is the endorsement of such a program by a higher administrator. Preferably this person has some input into such extrinsic motivators such as raises, promotion, tenure, etc. Certainly, then, this individual could be your department chairman, you dean, or perhaps, depending upon the size and structure of your institution, the chancellor or president. A most advantageous situation is the endorsement of the program at each admininstrative level.

A second problem confronting the program is facilitating an entire faculty in terms of time slots available for such inservice programs. This particular situation often provides an escape route for those faculty less motivated. Certainly each of your situations will vary, however, at the University of Colorado, I have found that a forty-five minute to one hour period during a faculty meeting has been most effective. First, there is compulsory attendance at all faculty meetings. Secondly, it is easy to obtain the time because of the commitment of our department head.

Once you have a captive audience, the inservice should lead off with an introduction or updating of the faculty to special populations and their legal

rights as a minority population. This should arouse broad discussion of various groups with handicapping conditions. It also provides a springboard to the discussion of current legislation dealing with the rights of the handicapped. Most of these laws are familiar to all of us, with Section 504 of the Rehabilitation Act and especially Public Law 94-142, "The Education for All Handicapped Children Act" being the most prominent.

Ultimately we must approach the primary problem of collecting and incorporating information and materials into each subject area. This is probably the number one stumbling block to this model. With the specialist in adapted physical education serving as a resource person, each faculty member is paired with at least one graduate student with interest in a particular subject area. This team then gathers the information relevant to the topic area, using as guidelines a project from Michigan State University by Goldhammer and others.[2] In this study, nine content components were identified as necessary to help prospective teachers develop skills necessary to teach children mainstreamed into their "regular" class. The areas were: (1) Nature of Mainstreaming; (2) Nature of Handicaps; (3) Attitudes; (4) Resource and Support Systems; (5) Learning Styles; (6) Teaching Strategies and Methodology; (7) Curricular and Spatial Modification; (8) Communication; and (9) Evaluation. With these components as guidelines, more specific competencies in physical education can be provided. Thirty-five such competencies were identified by Dr. Winnick at the University of New York, Brockport. These identified competencies can be used, where appropriate to the subject area, by the team to help identify and sort relevant materials about the handicapped.

The next step is completely individualized and again dependent upon the subject area as well as the teaching technique of the instructor. This step then incorporates newly collected material dealing with the handicapped into the existing framework of the course. This portion of the model has not yet been field tested. However, we are strongly encouraging our faculty to incorporate material, where appropriate, throughout the course. Alternatives proposed by faculty members have ranged from including the information as a separate unit, to one day set aside to deliver information dealing with the handicapped for each unit.

One the material has been implemented, for a one semester period, the material and its impact upon the class enrollment will be evaluated. This evaluation will consist of critiques by both the instructor and class participants. Based upon this evaluation, revisions in content and presentation should be made. Following completion of the first semester, a series of inservice classes will be conducted. The primary function of these meetings will be the sharing of presentation experiences, both good and bad, rather than content. At this point, we would hope that all core classes required of any physical education major at the University of Colorado would have "infused" into the course relevant information concerning special populations. The materials and outcome of our inservice should be available to other universities and interested individuals during the 1979-80 academic year.

In a brief review, our inservice should be initiated with the securing of an endorsement for the program. This support could potentially come from both your department head and dean. Support of this nature should provide the

necessary motivation for those faculty members not especially enthused about the project.

The next area to be considered very carefully is the scheduling of the inservice meetings. We all know and feel that with a few extra hours each day we could accomplish those tasks and commitments required of our position. So it becomes very important to the success of your inservice program to consider the other duties of your faculty. The first series of inservice meetings, conducted by the adapted physical education specialist, should be designed to impress the need for better preservice preparation. This can be done through the discussion of legislation, special populations and research into the need for improved preservice preparation.

The development of materials will have to occur through the efforts of the faculty and students working within a team concept for each subject area. Certainly these "teams" must be assured that there will be a resource person available to them. The possibility exists that the incorporation of materials will necessarily be different for certain topics areas. However, as mentioned before, it is our feeling at this time that the infusion of materials should be throughout each unit and even each lecture. Thus, the attitude that special populations should be included within the mainstream and not segregated would be enhanced.

Assuming the collection and incorporation of materials goes well, a period of implementation should follow. The ideal situation would be a one semester period though this may vary with different institutions. Once the instructor has had the opportunity to present the material in a class format, an evaluation needs to be conducted. This should be a joint procedure where input is gathered from both the instructor and the students. Such an evaluative technique should help the inservice director and the instructor identify both the strong and weak areas. The identified areas should evolve around the relevancy of the material and presentation format. Information of this nature can be shared during the follow-up inservice meetings. Here the instructors can share their successes and concerns. Finally the project is less than complete unless revisions and improvements can be made.

This is the format for a University Inservice Model. It should, if implemented with direction and enthusiasm, improve the preservice preparation of all physical educators to deal with special populations via an inservice program for the university faculty.

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Parents and the Handicapped Child

H. D. Bud Fredericks, Victor L. Baldwin, and William Moore

This paper summarizes the involvement of parents in the education of their handicapped children. It proposes that parents can be involved in three effective ways. The first of these is their input into the development of the individualized education programs for their children. Parents can also be used as volunteers to assist teachers in the classroom. The third method of involvement has parents conducting home programs in a system known as the Lunch Box Data System.

THE PARENT AND THE IEP

Public Law 94-142 has guaranteed the right of parents to be a part of the planning process to determine the educational programs for their children. Parents therefore, should help to select and to prioritize the curricular areas in which children should be taught. Because of the requirement placed on educational environments to specify the manner in which the child's progress is being measured, the implication is present that parents have a requirement to monitor their progress. In turn, the school districts should actively involve the parents to solicit their assistance in the development of the individual education program, and should welcome parents monitoring the child's program throughout the school year.

PARENT AS A VOLUNTEER

Perhaps one of the most productive involvements of parents is as volunteers. Volunteers provide a means of individualizing instruction to children to assist them to accomplish the tasks that are being taught to them. Volunteers have been found to be especially useful in the teaching of children in the Data Based Classroom developed by Teaching Research (Fredericks, et al., 1977).

The use of volunteers was supported in a study conducted by Fredericks et al., (1977) which identified indicators of competencies of teachers of the severely handicapped. The primary indicator was the ability of the teacher to maximize instructional time. One of the methods of maximizing time by teachers whose students were making high gains in skill acquisitions was through the use of volunteers to conduct instruction in the classroom.

In discussing the use of volunteers with a teacher, it is not uncommon to hear, "But I wouldn't know what to do with them", or "They are more trouble than they are worth", or "I don't have the time to train them; they really get in my way". On the other hand, when interviewing volunteers who have been utilized in programs for handicapped children, the volunteers lament:

"I stayed around and didn't do anything all day long". "All I did was change diapers and clean up messes. I would like to do something more constructive than that". "The teacher didn't give me the adequate instructions on how to do the task, and became annoyed when I didn't do it properly". Evidently, the utilization of volunteers in the classroom often becomes a source of displeasure not only for the teacher, but for the volunteers.

Nevertheless, volunteers can be used effectively both to their satisfaction and to the teachers satisfaction also, if certain principles are followed. These principles, developed by the Teaching Research Infant and Child Center, are as follows: 1). Time must be taken to train volunteers; 2). Volunteers must be used at teaching tasks in the classroom comparable to their level of training; 3). A system of feedback as to the adequacy of the volunteer's performance must be practiced; 4). A simplified system of communication, not requiring verbal interaction between the teacher and the volunteer, must exist; and 5). A system of flexible scheduling of volunteers must be used.

The limitations of space within this paper precludes a detailed discussion of each of these principles. They are explained in depth in Fredericks, et al., (1977).

However, certain salient features of effectively using volunteers should be emphasized here. For instance, volunteers can be trained in the course of a two hour orientation and lecture followed by assignment of roles in the training environment that would allow them to teach a specific skill in the P.E. area. In essence, the training of a volunteer requires that the volunteer be taught how to cue a child, that is, how to give the child instructions or how to present materials. Second, volunteers must learn how to observe a child's behavior. This observation is facilitated if a detailed task analysis which describes the behavior to be emitted by the child is available to the volunteer and has been demonstrated by the teacher. After the child performs the task the volunteer must provide to the child some feedback about the child's performance. Finally, the volunteer must record that performance in a way that can be communicated easily to the teacher.

The above elements require that the teachers have structured their educational environments so that volunteers have little confusion about what and how to teach the child. The cues and materials must be precisely specified as is the task sequence for the behavior. It has been demonstrated that volunteers can be taught to reinforce the child for proper performance but that volunteers have difficulty when the child does not perform or provides the wrong response. This difficulty can be ameliorated by providing the volunteer with a standard correction procedure. The Teaching Research Infant and Child Center uses a correction procedure which has four elements: 1). Provide feedback saying, "No, you did not do that correctly; 2). Recue the behavior to be performed; 3). Lead the child through the behavior either actually physically assisting or prompting him through the behavior so that he achieves success; and 4). Socially reinforce the child. Thus, even if the child does not perform, or provides the wrong response, every volunteer is comfortable because they know how to respond to the student's behavior. Finally, a precise data system which allows the volunteer to record on a prescribed form the performance of the child is necessary. With these four

elements a volunteer can successfully teach children.

If volunteers are utilized in this way, teachers will find them to be of much assistance to them. Moreover, volunteers will maintain interest in volunteering because they will see their usefulness in that they are actually teaching children. Because of the data system involved, they will be able to perceive the children's progress as a result of their teaching. Parents are especially good volunteers in this role, and should be encouraged to take part.

There is an ancillary benefit in parents being volunteers in the classroom. Because of the instruction that they receive as volunteers in how to teach children, they will learn skills which they can use with their own handicapped children in their home environment. Thus, a dual purpose is achieved by having the parent as a volunteer. Not only is assistance being given in the classroom, but skills are being given to the parent which will enhance the parent's handicapped child.

THE LUNCH BOX DATA SYSTEM

Many parent training models are designed to provide training to parents who do not have their children enrolled in a school program. In fact, some educators take the position that if the handicapped child is enrolled in a school program, there is little need for the parents to be trained in the techniques of teaching their own child. Two factors mitigate against this position. First, there is a body of evidence that indicates that if parents of children enrolled in a school also engage in some teaching of that child, the child's learning will be significantly accelerated. (More about this later). Second, pressure from the parents who want to participate in the teaching of their child often requires that they be taught <u>how</u> to teach their child.

Let us consider the latter point first. Our experience is that many parents, especially parents of handicapped children, are interested in doing the most they can for their child and consequently, are willing to undertake home programs. Moreover, as the success of the school program increases, parents become more eager to want to help their child. Frequently, they have been discouraged about their child until the school demonstrates some success, at which time the parent's discouragement is replaced by optimism and a desire to contribute to their child's new found growth pattern. Therefore, as educators, we need to be responsive to these desires of the parents and teach them the skills to teach their own child.

But even if the parents were not requesting this type of instruction, it is logical that parents be involved in at least some educational activities and training. For instance, it is practically impossible to toilet train a child with only a school training program; a coordinated program between school and home is mandatory if the child is going to be completely dry before he is a teenager.

Perhaps even more critical in the child's learning is the acquisition of language skills which also should require a home/school coordinated program. Language skills--the acquisition of sounds, blends, words, the chaining of

words--can all be learned through structured programs, but it is only through the daily utilization of language, with the child's natural environment responding to his verbalization, that we can hope to make fluent language a part of the handicapped child's repertoire. Since the parents usually constitute a large portion of the child's environment and provide much of the feedback he receives each day, it is necessary for the parents to be actively engaged in language acquisition with the handicapped child to maximize the rate of that acquisition.

Certainly, the entire range of self-help skills requires that the parent become involved in instructing the child. If a teacher is teaching a child to take off his coat which he is then required to do in school, it is instructionally self-defeating when the parent assists the child to take off his coat to a greater degree than the assistance rendered at school. Each of the self help skills--dressing, self-feeding, personal hygiene--present the same situation; therefore, a very closely coordinated program between school and home in the self-help area is required.

Not only in the areas mentioned above can parents be good teachers, but also they can be effective in any area of instruction. This effectiveness is demonstrated by an acceleration in the rate at which children learn and the quality and quantity of what they learn. In brief, if a parent conducts a daily ten minute to half hour training program at home in conjunction with the same training program at school, it has been demonstrated repeatedly that a child will acquire the taught skill in a significantly shorter amount of time. In fact, the data demonstrate that the systematic program conducted by the parent, in conjunction with the school program, will almost double the rate of acquisition of the skill.

Parents of each child in the program should be approached to conduct at least one home training program. In educational programs comprised of handicapped children, a group meeting is held with the parents, either as a total group, by classroom, by age group, or by handicapping condition. The purpose of the meeting is to explain home training programs and "sell" the idea to the parents. Two major selling arguments have been found to be successful. First, the increase rate at which the child can acquire skills should be demonstrated to the parents by specific examples. Second, the necessity for the generalization of learning especially in the areas of self-help skills, toilet training, and language acquisition in the home environment should be stressed. (Some teachers prefer individual conferences with parents in lieu of this group meeting). Individual conferences are most appropriate for parents of integrated or mainstreamed handicapped children.

Conferences are then scheduled with the parents to determine which program the parent desires to conduct at home. Great care must be exercised in this initial selection of a program. One of the primary rules in this selection is to choose a program with the parent that has a high probability of success. If a skill being taught at school is progressing slowly and with difficulty, this skill would not be an appropriate initial selection for a home program. Success will be further guaranteed by breaking the behavior into smaller parts (task analysis) and letting the parent teach one part at a time. Figure 1 shows the task analysis for kicking a ball with

E. Kicking with Preferred Foot

Terminal Objective: Child will kick a stationary ball 10" to 12" in diameter with the preferred foot for a distance of 20'.

Note: To perform this behavior, the child should move the foot backwards, then move it forwards, kicking the ball which is placed 6" from the foot. Eyes should be focused on the ball.

Notice that two behaviors are being programmed in this sequence. One is the accuracy of the child in his ability to kick the ball forward, and the other is the force applied in kicking the ball. The force is directly proportional to the backward motion of the foot prior to its contact with the ball. The teacher may want to consider both of these skills independently, depending upon the type of child under consideration.

Phase I	Child will move the ball while standing with the foot.
Phase II	Child will kick the ball placed 6" in front of the preferred foot.
Phase III	Child will kick the ball placed 6" in front of the preferred foot for a distance of 5'.
Phase IV	Child will kick the ball placed 6" in front of the preferred foot for a distance of 10'.
Phave V	Child will kick a ball placed 6" in front of the preferred foot for a distance of 20'.

Steps 1-3 apply to Phases I-V above.

Steps:

1. Trainer delivers verbal and signed cue and assistance.
2. Trainer delivers verbal and signed cue and a demonstration.
3. Trainer delivers verbal and signed cue.

Figure 1. Task Analysis of Kicking With Preferred Foot

a preferred foot. These task analyses, of course, are the same ones being taught in the school. When this task is being taught to the child, the parent is not faced with having to teach the entire task, but only one small step at a time. Thus, the chance for the parent to see some progress is greater and the parent will be reinforced.

After the program has been selected, the parent is ready to be trained. The process of training a parent to conduct programs at home is similar to training volunteers except that in lieu of the initial group meeting with volunteers, the initial meeting with the parents is individualized.

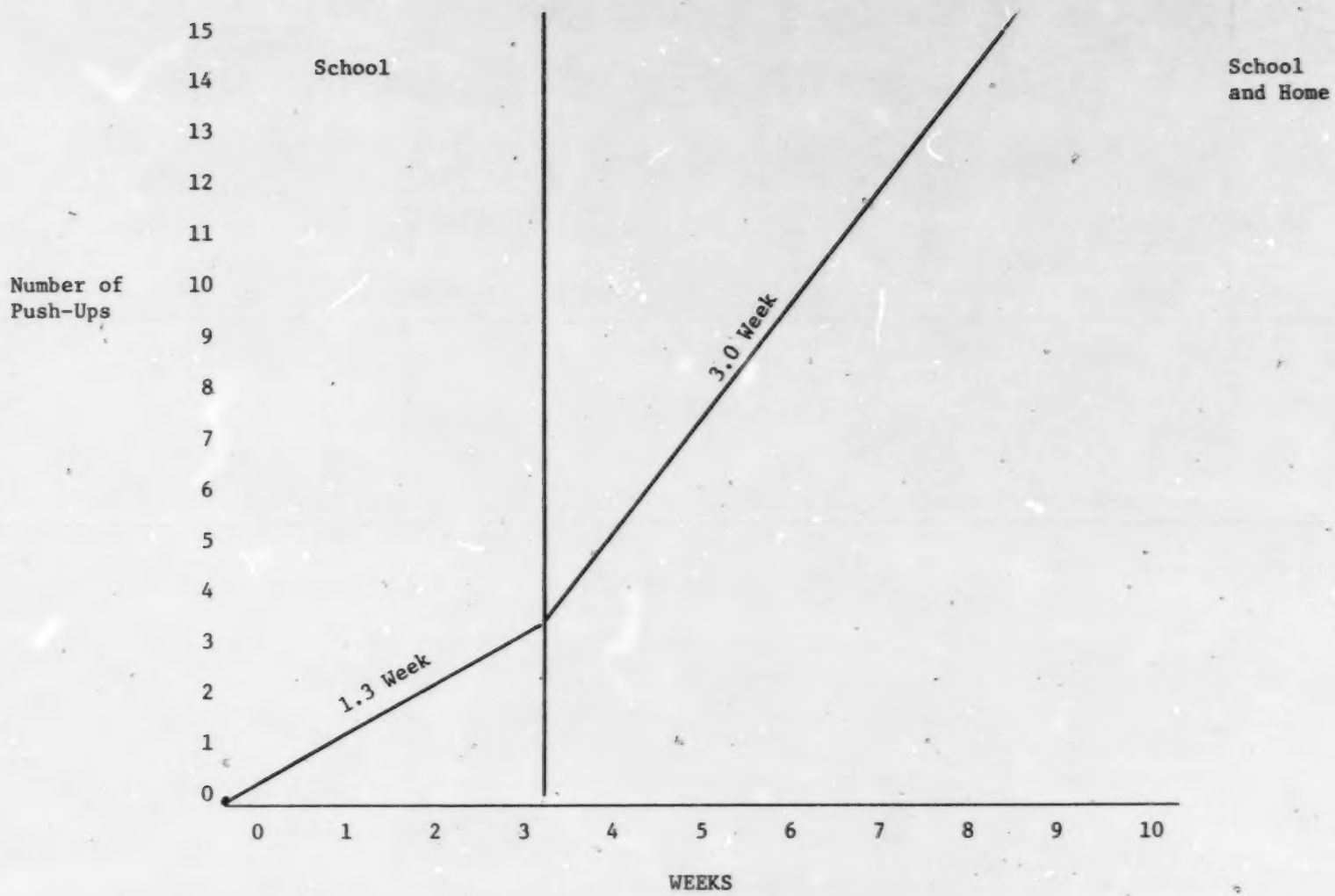
Since the same program is being conducted in the home as the school, is is important that this program be coordinated between two environments. Therefore, passing information about the child's progress back and forth between the parent and the school on a daily basis is necessary. We have dubbed this daily reporting system the Lunch Box Data System. (Fredericks, et al., 1977 provides a description of a data system that has been quite acceptable to parents).

The parent will continue to run the program, and data will continue to be coming back and forth between the school and the home. Frequently, the parent may experience problems. The parent should communicate these as rapidly as possible to the teacher so that the teacher can take remedial action. Frequently, when the parent has such problems, it is necessary to demonstrate how he or she is conducting the program, in order to isolate the problem.

Even if the parent is not experiencing problems with the program, periodic conferences--at least once every three or four weeks--are recommended. During these conferences the parent should once again demonstrate how she is conducting the program at home. Frequently, all teachers begin to acquire some bad habits in their teaching, and parents are not exempt from this fault. Thus, this periodic conference serves as a maintenance check on the quality of the home programs. Therefore, this program of home/school teaching requires the closest liaison with the parent; daily communication occurs through the Lunch Box Data System, but there also may be a necessity for frequent phone calls and at least once a month face to face interactions.

Bringing the parents together as a group periodically and letting them share their experiences in the teaching of their children has been welcomed by many parents. This type of conference is especially valuable for those parents who may be having some difficulties; after listening to how other parents do it, they may be encouraged to try even harder. For parents who are having success, the opportunity to voice that success publicly can be very reinforcing and may help to insure their continuance in the program.

Children's progress in a program such as this is accelerated beyond what can be achieved if the program is conducted in the school alone. Figure 2 shows an example of such acceleration. The program shown, modified push-up, indicates that the child was improving his ability to do modified push-ups by increasing the number he could do at the rate of 1.3 per week when the program was conducted in the school only. When the program was conducted both at home and at school, he was adding three push-ups a week to the number he could do.



Modified Push-Ups - Down's Syndrome Child - Age 8

Figure 2. Example of progress of child in a coordinated school-home program

SUMMARY

This paper has been described three ways in which parents can be involved in the education of their handicapped children: 1). through recommendations for the child's program in the IEP; 2). through the use of parents as volunteers in their children's programs; and 3). through the use of parents as home teachers in the Lunch Box Data System. Each of these involvements has only one purpose - to enhance the education of the handicapped child.

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